# Lectures
ON THE
# RELATIONS OF THE TUBERCLE BACILLUS TO PHTHISIS.

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## LECTURE II.

### ITS INFLUENCE ON THE CLINICAL HISTORY AND TREATMENT.

(*Concluded from page 271.*)

THE subjoined is a good instance of the relation of the bacilli to laryngeal phthisis with advancing tuberculisation.

CASE 9. — Annie S——, aged twenty-three, asylum attendant, admitted on March 16th, 1883. Her mother suffered from chest affection. Cough came on in March, 1882; it diminished in the summer, but increased again last October. At first there was no expectoration, but latterly it has amounted to half an ounce a day, and occasionally it has contained a few streaks of blood. She suffered from pain in the left chest and shortness of breath on exertion. She lost her voice twelve months ago, and has not regained it. During the last fortnight she has had diarrhœa. Has not lost much flesh. Evening temperature 99° to 100° F. The symptoms have continued up to the present time. Physical signs: Left chest—dulness, slight flattening, and rather coarse crepitation from the clavicle to the lower border of the third rib; dulness and crepitation over the upper fourth posteriorly. Weight 8 st. 1½ lb. Dr. Percy Kidd examined the larynx, and found an old ulcer with ragged edges on the posterior wall, with cords reddened, and showing incomplete adduction; he pronounced it to be a case of laryngeal phthisis.—March 30th: Cough more troublesome; expectoration slight. Complains of pain in the left axilla. Bacilli very abundant in the sputum, and arranged in bundles.—April 26th: Cough still troublesome; expectoration decreased; larynx tender. The evening temperature has ranged from 99° to 101° F. Crepitation audible on coughing in the first interspace on the right side, and to the fifth interspace on the left side. The bacilli were few in number fourteen days ago; they have now become abundant, numbering thirty to forty in the field. Voice about the same.—May 1st: Has had diarrhœa during the last two days; four motions a day. The temperature rose last night to 103° F.—June 10th: The patient has been more or less feverish during the last five weeks, and often confined to bed. Cough less; voice the same. She has lost flesh steadily, and now only weighs 7 st. 6 lb., a loss of 9 lb. Pulse 112; evening temperature 101° F. Physical signs: Right side—slight dulness in the first interspace. Left side—dulness as before; crepitation greatly diminished, but still audible to the fifth rib, and posteriorly over the upper half. Dr. Kidd examined the larynx, and found it in much the same state as on admission. The ulceration had not extended, and the adduction of the vocal cords was still imperfect. The sputum contained from ten to fifteen bacilli in the field.

In this case the advance of the disease took place in the lungs, and not in the larynx, being ushered in by an increase in the number of bacilli. With the diminution of crepitation the number of bacilli in the sputum sank.

In cases of quiescent cavity we find bacilli present in numbers corresponding chiefly to the amount of discharge, which, as a rule, is very small. When the cavity contracts this may be reduced still more, and in many instances of this kind they cease to appear in the sputum, not because they no longer exist in the lungs, but rather because the communication between the cavity and the bronchus being blocked by the increasing lung contraction, the bacilli cannot escape with the sputum, which under these circumstances is purely bronchial; at any rate, this is the case with the sputum ejected from that lung. I had a good instance of this in the case mentioned in the statistics of bacilli.[1] Many cases of contracting cavity, where there is considerable dislocation of the adjoining organs, and where the cavernous sounds are barely audible, nevertheless show bacilli in the sputum, because the bronchus leading to the cavity remains patent; but if these are few in number and there is strong evidence of fibrosis, their presence need not much modify the prognosis of the case; on the other hand, when a cavity opens into the pleura and pneumothorax results, the number of bacilli increases considerably, as I noted in a well-marked case of acute phthisis ending in pneumothorax under my care last winter.

We will now consider the relation of the tubercle bacilli to the general symptoms of phthisis. The perusal of the above cases will show that they do not materially affect the gain or loss of flesh. As regards pyrexia, the question is more difficult to determine, but it may be safely affirmed that they are present, and in fair abundance, in non-pyrexial phthisis. When pyrexia accompanies tuberculisation and exudation they certainly increase largely, but this may depend on the local processes, and not on the general irritation.

In the case of a girl, aged seventeen, with a cavity at one apex and some tuberculisation taking place at the other, the temperature ranged between 100° and 103·6° F. for fourteen days, and it was not until four specimens of the sputum had been tested that we succeeded in finding bacilli, and then only in small numbers. In another female patient, aged fourteen, with a cavity in each lung, where the temperature course occasionally ran high, bacilli were found in the sputum, but in small numbers. A third case, also one of double cavity with pyrexia, showed a temperature chart between 100° and 103·6° F. for sixteen days, yet bacilli were only detected in the sputum in small numbers. On the other hand, some cases in which the bacilli have been particularly abundant have shown no pyrexia, and the explanation appears to me to lie—first, in the fact that both tuberculisation and excavation may take place without pyrexia; secondly, that the examination of the sputum only teaches us what is going on in the lungs, which doubtless in cases of active pulmonary changes means a good deal, but when the blood is poisoned and the system generally becomes infected, we must not expect the sputum alone to give explanations, which should be sought in other secretions. At present our testings of the blood have failed, but I have no doubt that this will not always be so.

*Prognosis.*—Much stress has been laid by writers on the value of the bacillus tuberculosis in prognosis, and the cases I have given demonstrate this strongly, the unfavourable elements being, first,—the rapid increase of bacilli, and, second,—their arranging themselves into groups, both of these phenomena indicating activity or extension of the disease.

*Infection.*—The detection of the organism special to phthisis in the breath and sputum of consumptive patients naturally would lead us to conclude that it must be infectious, especially when it is remembered that owing to a large portion of the population being phthisical it is probable that in many of the houses and streets the air is impregnated with lung exhalations and dried sputum.[2] Still cases of infection are very rare. The evidence of this large hospital, now established thirty-seven years, has been published by me elsewhere,[3] and shows that among its resident staff of medical officers, clinical assistants, matrons, nurses, and servants, the contraction of the disease by infection is practically unknown, for among some hundreds of residents only two instances of the disease having commenced during stay in the hospital can be cited, and in each of these there were special circumstances. The non-resident staff also appear exempt, except the dispensers, who have little or nothing to do with the patients, but who nevertheless, owing probably to bad ventilation of the old dispensary, have had some cases among them. There have been times when, owing to defects arising in the ventilation, the air of the hospital has become undoubtedly impure, and erysipelas and sore-throat have appeared in the wards; but although we have carefully watched for instances of infection among the non-consumptive cases under these circumstances, we have never found

[1] THE LANCET, February, 1883.

[2] An interesting confirmation of this is to be found in MM. Malassez and Viqual's experiments (Brit. Med. Jour., August 18th, 1883). The zoogloic masses which these authors describe, and apparently connect with the tubercle in which no bacillus is found, are probably the same as the blue micrococci of Heneage Gibbes, which have often been detected in phthisical sputum, accompanying the bacilli.

[3] British Medical Journal, Sept. 30th, 1882.

them. This, considering that the bacilli must accumulate at such periods, is worth noting. When, however, I am asked if phthisis is communicable I answer, Yes; I believe it can be communicated, though it rarely is, under certain conditions, which are as follows:—1. By constant inhalation of the breath of a patient suffering from acute tubercular disease, undiluted with the proper quantity of fresh air. To produce this result the sick and healthy must sleep in the same room, and probably occupy the same bed, facing each other; the ventilation must be very bad, and the healthy person must be weakened by anxiety and nursing. The commonest examples of this form of infection are mother and daughter, or two sisters sleeping together, and the healthy one sickening of consumption after nursing the other. Here, again, we generally have a certain amount of family predisposition to take into account, as in the case of mother and daughter; if the daughter's disease comes on after the mother's, we are apt to conclude at once that it is hereditary, and in the case of the mother's disease following the daughter's it is said that the predisposition to phthisis already existed in the mother, that she transmitted it to her daughter, and that it developed late in herself. I am inclined to think that we are assigning too much to heredity in some of these cases. Taking these intimate relations of life between the healthy and sick into consideration, we must not forget the many negatives, where under these very conditions phthisis is *not* contracted, and we must compare them with the few positives, where it is so contracted. 2. From husband to wife, or *vice versâ*. This may occur (1) through coition, or (2) through inhalation of the breath. Dr. Hermann Weber's cases are the principal evidence of the first form, these being for the most part instances of wives being infected by husbands, infection only taking place after pregnancy, and the disease then assuming an acute form. Dr. Weber pointed out how much more liable the wife was to such infection than the husband, who was the subject of attack in only one of his cases. Here, again, we cannot help reflecting on the numerous opportunities of such contagion, and of the rarity of its occurrence. I have known a few instances of the first form of infection, and as regards the second (that between husband and wife) I have a good instance in a widow, in the Derby ward at present, where infection took place probably through the inhalation of breath, and not through pregnancy, as the patient recovered thoroughly from her confinement.

CASE 10.—Harriet P——, aged twenty-six, a widow, formerly lady's-maid, admitted April 30th, 1883, with the following history. Father alive, aged sixty-three, healthy; mother aged fifty-four, healthy; paternal grandfather died at the age of eighty-two; maternal grandmother upwards of seventy years of age before death. Has three brothers and four sisters younger than herself, and all healthy. She was apprenticed to dressmaking from the age of sixteen to nineteen, lady's-maid from nineteen to twenty-two, and when she married, in 1879, was in excellent health. Her husband was attacked with consumption soon after marriage, and died in August, 1881. About two years after her marriage she was confined, and recovered perfectly, the child (a girl) being somewhat sickly, with a slight cough. The patient nursed her husband throughout his illness of two years' duration, living at the time in small contracted rooms very deficient in ventilation, the bedroom having no fireplace, and being only ventilated through the sitting-room, and being quite unfit for habitation. The husband's disease was of an acute character, with well-marked pyrexia, and in addition to large cavities forming in the lungs, causing profuse expectoration, there was tuberculous ulceration of the intestines, giving rise to obstinate diarrhœa. The patient had a slight cough at the time of her husband's death, which disappeared shortly after. Her chest was examined by me at this time and found free from disease. She remained in fair health for six months, when the cough returned with a small quantity of expectoration, which about last Christmas became yellowish, and increased in quantity till it reached two ounces daily. At that time night-sweats came on and she lost flesh (about 8lb.) She has had no hæmoptysis. On March 22nd, 1883, she was examined by me, and I found on the left side dulness and coarse crepitation from the clavicle to the fourth rib and above the scapula, and crepitation in the first interspace on the right side. On April 16th I examined her again, and found the symptoms worse, and that the crepitation on the left side had extended over the upper half of the lung. On admission to the hospital, April 30th, her cough was slight and the expectoration nummular (half an ounce); breath short on exertion; night-sweats slight; bowels regular; appetite fair; catamenia too frequent. Pulse 100; evening temperature 100·4° F. Weight 7st. 4lb. Physical signs: Right side—dulness; crepitation from clavicle to third rib with click sounds above the clavicle; crepitation over the upper third posteriorly with tubular sound above the scapula. Left side—dulness from clavicle to third rib; cavernous sounds audible in the first two interspaces close to the sternum; posteriorly dulness over the upper half with loud cavernous sounds above the scapula. Since admission the temperature has been somewhat high. Bacilli have been abundantly detected in the sputum.

It is seldom that we come across a history so free from family predisposition to phthisis as this one, and the only drawback to accepting the case as one of infection is the period which elapsed between the death of the husband and the development of the symptoms. These, however, came on so rapidly, both lungs appearing to be simultaneously attacked, that we must conclude the cause of the disease was something in the system, and not the result of cold. It is possible that the bacilli can lie dormant for a while, and multiply and become active after a time; or, on the other hand, they may, for a period, be present in such small numbers as not to give rise to processes which can be detected by physical signs.

A third form of infection is through eating tuberculous meat, or drinking of the milk of diseased women or animals. Several cases of this kind have occurred on the Continent, but they are, happily, little known here. The remarkable cases of bovine tuberculosis in man related by Dr. Creighton[4] may also be due to this cause.

What measures should be taken to prevent the above forms of infection? 1st. Good ventilation of the rooms inhabited by the healthy and sick, and especially of the bedrooms. 2nd. The consumptive should sleep in a separate bed, if not in a separate room, from the healthy. Where a healthy person shares the same bedroom as a consumptive, the window should be kept open, or a Tobin tube introduced, to ensure abundant fresh air in addition to the ordinary chimney. Where, for unavoidable reasons, the healthy person occupies the same bed as a consumptive, care must be taken not to inhale the breath of the latter. 3rd. The sputum should be frequently removed and disinfected, or, as perhaps there are now doubts as to the efficacy of disinfectants, it had better be burnt. The sputum should be received into a covered cup or spittoon, which only allows of a very limited evaporating surface, and this should contain a strong disinfectant, such as terebene or chlorate of lime, and it should be emptied at least twice a day; and in this way danger of infection from this source may be prevented.

*Treatment.*—And now comes the question, How are we to combat these bacilli? Shall we apply medicaments directly to the pulmonary mucous membrane? or shall we depend on strengthening the constitutional powers to resist the attack, or shall we try both methods? The treatment of phthisis by vapours or inhalations is very old, and has never been very successful. The form most in fashion at present is that of an ori-nasal respirator, containing a few drops of carbolic acid, creasote, thymol, eucalyptol, with or without some sedative to prevent irritation, a common adjunct being spirits of chloroform. The shapes of the respirators vary greatly, from the simple perforated iron oval one of Dr. Roberts, to the more elaborate ori-nasal form of Cuschman. They are worn for periods of from one hour to six or seven hours, taking them off occasionally when irksome to the patient. During the last three years I have made trial of every form which seemed to offer any advantage, using in them a great variety of medicaments. I have specially noted their influence on cases where tuberculisation was commencing. Sometimes, though rarely, the cough has somewhat lessened, and the patients have felt soothed by their use; but I have never found them to have the slightest effect in diminishing the local disease, or in permanently reducing the cough. I have noted the extension of crepitation from one apex downwards, or its replacement by the signs of excavation, in spite of continued use of this form of treatment, and though I have often perceived a diminution of the crepitation in early cases, I have never been able to connect it with the use of these respirators.

The contrast between the effects of these and the results

[4] Bovine Tuberculosis in Man, 1881.

of counter-irritation applied to the chest wall overlying the diseased lung is very striking. The cough, which weeks of inhalations have not relieved, is often at once reduced by the production of a good blister on the skin, and the expectoration, which was difficult, is quickly rendered easy by some forms of saline expectorant, especially if combined with a little antimony or ipecacuanha. Another objection to these respirators is that they seriously impede the freedom of respiration, partly by limiting the movements of the jaws, and partly by the obstruction to the exit and entrance of air, which is caused by the wire gauze. They thus more or less muzzle the patient, and prevent that entire freedom of respiration which is so essential in phthisis. Some experiments made by Dr. Hassall on the validity of various antiseptics when used in respirators, and published in THE LANCET of May 5th, 1883, go to show that creasote, carbolic acid, and thymol are scarcely capable of volatilisation at the temperature generally used in these appliances, and that the amount inhaled when the respirators are used for one or two hours daily is so small as to be practically useless. Iodine, on the other hand, was easily volatilised; but, on reaching the mucous membrane of the mouth, appears to be converted into an iodide by combination with the saliva, and it is doubtful how much of the pure iodine reaches the respiratory surface, though some probably may. When carbolic acid and iodine are inhaled together, according to Dr. Hassall, a strong chemical action is set up between them, whereby probably the antiseptic properties of both are impaired.

Those practitioners who firmly believe in the antiseptic, or rather germicide, virtues of carbolic acid in phthisis, will do well to consider the statement of Mr. Watson Cheyne, reported in the *Practitioner*, April, 1883, p. 285, Experiment xiv., No. 3, "One part of the fluid containing bacilli was mixed with one part of a 5 per cent. watery solution of carbolic acid; this stood fifteen minutes, and was then injected into the left eye of a rabbit." After forty-three days the animal was killed and found to have tubercular iritis of both eyes, and with a considerable number of minute tubercles in both lungs, one or two of which showed commencing caseation. The liver and spleen also contained tubercle. Microscopic examination showed abundant bacilli in all these organs. Here the influence of the carbolic acid was brought to bear on the bacilli in a far stronger and more intimate way than is practicable for application to the human body, except we are prepared to follow Dr. Fränkel's example and inject it and other antiseptics, directly into the lungs through the chest wall, and the results of this mode of treatment as practised by him are not very encouraging. In Mr. Cheyne's experiment the carbolic acid seems to have exercised no influence whatever on the bacilli, which continued to prove their vitality by largely multiplying in the inoculated animal, and this shows the great importance of first studying the conditions of life of these low organisms outside of the human body, and then of testing the effects of various antiseptic drugs on them. In this way we may discover substances fatal to the bacillus, and then proceed to devise methods of applying them, so as to reach and attack the enemy in his strongholds of the human body. But this knowledge can only be attained by long and careful investigation and the work of many patient observers.

Another mode of antiseptic treatment is by hot-water or steam inhalations of various kinds, some form of inhaler being used, and the different drugs kept at a temperature suitable to promote their vaporisation. In this way we, at any rate, do get the drug inhaled to a certain extent. The best form of this treatment seems to be jets of steam spray charged by means of capillary tubes with necessary medicaments, such as may be seen in use in the inhalation rooms of the new hospital at Brompton. The patients receive a good deal of the drug into their bronchial tubes and lungs in a short time, owing to the force of the steam current; but the objection lies in the damp and hot atmosphere which it causes and the inexpediency of subjecting the patient for any length of time to such strong measures.

The third method is by diffusing through the air of a chamber medicated vapours. In this way consumptive cases can be kept under the influence of special drugs for long periods. In this method we only imitate some varieties of climate, such as those of the sea coast, of pine woods, and of sulphur springs, or in the neighbourhood of volcanoes. Two rooms are set apart for this purpose in the new hospital, and at the present time two of my wards, containing three beds each, are kept specially impregnated with the vapour of iodine and chlorine respectively, and suitable cases are selected for this mode of treatment. Observations are being made, and I purpose trying the effect of various drugs in this way.

In the treatment of consumption no stone must be left unturned where we can see any reasonable prospect from treatment, local or general; and we must not forget that though various kinds of local treatment, including inhalations, have been tried from time immemorial, it is to the general treatment in the form of tonics, cod-liver oil, and hygienic and climatic measures that we owe the prolongation of life and the majority of cases of arrest of the disease, now happily so numerous. These trusty aids must never be omitted; but we may often combine with them antiseptics in the form of arsenic, quinine, &c., which, by entering the pulmonary circulation, may, as has been often proved to be the case, act more effectually on the local disease than when applied direct to the pulmonary mucous membrane. By such constitutional measures we may do much, and, even if the enemy gain a foothold in the fortress, we may, by strengthening the garrison, cause him to be expelled and the breach repaired. The arrest of phthisis has undoubtedly been produced in many cases by the influence of certain climates, and specially by that of the high altitude resorts. We must remember that though the aseptic character of the air of these last is urged as their chief advantage, the bacillus tuberculosis is found in the sputum of phthisical patients at Davos, as in London, showing that the air of these regions is not absolutely fatal to bacillar life.

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ON THE

# DEVELOPMENT AND COAGULATION OF THE BLOOD.

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(*Concluded from p. 274.*)

*On fibrin-formation.*—In the midst of all this criticism there are some important and gratifying admissions. Thus it is coming to be generally admitted that "keeping the white corpuscles out of view the other blood-corpuscles are not all alike"; that there are "discs of very different shades of colour and degrees of distinctness"; that "there are differences among the corpuscles which may reasonably be supposed to depend upon their age—that is to say, the length of time they have been circulating"; that "considering also the known adhesiveness of white corpuscles to solid surfaces, it is quite reasonable to suppose with Dr. Norris that of the other corpuscles the younger are the more adhesive," and "we are not disposed to deny that some colourless clear discs really occur in the blood circulation." Again another reviewer says: "In repeating this experiment of 'isolation' a great number of times, I began to observe that the appearances changed according to the length of time which elapsed between the spreading of the layer of blood, between the two glass surfaces, and the moment when the cover-glass was raised, and thus discovered that a whole series of phenomena could be traced, leading from the pale or colourless disc up to the complete formation of networks or bands of fibrin." Further, it is said: "If the cover-glass be removed quickly and dexterously, it will be observed that the circular appearance of the corpuscles is perfectly preserved, and *that every shade of colour may be found from the normal red corpuscles down to the colourless Norris corpuscle.*" It is then pointed out how these latter corpuscles, if time be given them, undergo changes which eventuate in the formation of perfect fibrin forms, of which a number of drawings by the camera lucida are given. It is also admitted in the following words that the granules described by M. Ranvier[1] as the centres of fibrin-formation are in reality derived from the invisible colourless discs. "They [the granules] appear to me to be all that is left of the pale corpuscles [discs] whose intermediate transformations had not before been recognised," whilst "the departure of the fibrils of fibrin, from the pale corpuscles [discs] is, I think, demonstrated."

[1] First described by the late George Gulliver, F.R.S., &c.

From what has been stated it is obvious that the reviewer accepts the statement which I was the first person to enunciate—viz., "That the biconcave discs of the mammal blood are divisible into two groups, a fugitive or unstable, and a permanent or stable group, and that the changes which take place in the former determine coagulation.[2] That part, therefore, of my research which refers fibrin-formation and coagulation to the fugitive or unstable discs of the blood is fully admitted. The admission "*that every shade of colour may be found from the normal red corpuscles to the colourless Norris corpuscle,*" also accords entirely with my conclusions—(1) That there exists in the blood of mammalia, in addition to the well-known red and white corpuscles, colourless transparent biconcave discs of the same size as the red ones. (2) Between these two kinds of biconcave discs, others having every intermediate gradation of colour are demonstrable.[3] In what, then, consists the difference between us? The existence of the invisible and of the intermediate corpuscles is fully admitted, but a doubt is raised as to whether they exist in this condition in the living blood. It is averred that "they may be red corpuscles that have undergone post-mortem changes prior to taking part in the formation of fibrin"; or, again, "these colourless discs are, in my opinion, unstable red corpuscles, or corpuscles of low resistance, which have parted with their hæmoglobin, possibly simply by the fact of the withdrawal of the serum." According to the reviewer's own admissions it is not mere instability with which we have to deal, but with what I may be allowed to call "graduated instability"—that is to say, the corpuscles are already so different among themselves, that under the operation of the same cause they will be affected in such a manner as to present a perfect gradation of colour—from colourless to full red; and this is ascribed in this case to one of two causes—viz., either to post-mortem change or to the withdrawal of the serum. The opposition is therefore, it will be seen, not directed against my views of fibrin-formation, but against that part of my work which relates to the development of the blood, which requires for its maintenance the existence of an invisible colourless disc, as a normal constituent of the blood. Now, it will be observed that the hypothesis that these colourless fibrin-forming discs, which are seen after "isolation," are decolourised red discs, is a purely gratuitous assumption, having nothing whatever to support it but the fact that they cannot be seen under the ordinary imperfect methods by which the blood is examined, and it is in entire opposition to the evidence furnished by the facts of the case.

The existence of a colourless, fibrin-forming disc being an admitted fact, in what way can we view the matter, so as to regard the absence of colour as due to post-mortem change? Fibrin, we know, is formed in the vessel during life (ante-mortem clots, emboli, &c.) and after death, and also after the blood is shed, and in all cases it is a comparatively white or colourless product, even when in considerable mass. Now, it is reasonable to suppose that the units which by their adhesive combination give rise to white masses are themselves also white, and if this be so, it is obvious that the fibrin which is formed in the vessels—say upon a thread passed through a vein during life—must be formed of colourless elements, and such colourless elements must therefore exist as such in the blood. I affirm that the elements which adhere to the thread and fuse to form fibrin are the invisible colourless discs of the blood, which we know to adhere at once to the glass-slide and cover as soon as they come in contact with them. The alternative view is that red discs adhere to the thread, and subsequently become decolourised. Against such a view it may be urged that the red discs do not adhere to foreign bodies, when out of the vessels, much less than when in them, to say nothing of the fact that there is no agency under such circumstances as these competent to decolourise them. All the evidence of ante-mortem formation of fibrin is diametrically opposed to its production from coloured elements, and, on the other hand, perfectly consistent with selective accretion of smooth colourless elements from the blood. A morphological origin of fibrin cannot be sustained on the view of mere instability of coloured elements. Colourless elements are required to account for its formation, both inside and outside the vessels. There is not the remotest ground for considering that fibrin is formed in any different manner inside the vessels during life than when the blood is shed, or that the formation of fibrin in lymph is essentially different from its formation in blood, and its formation from decolourised elements is altogether out of court in the latter case. My view of fibrin-formation, on the other hand, covers the whole ground, for it refers it in all instances to one and the same element—viz., the advanced lymph-disc, which becomes in turn the colourless disc of the blood. If, on the other hand, fibrin is formed from decolourised elements, then such elements must exist as normal constituents of the lymph and the blood. Such is manifestly untrue of the former case, and is altogether unproved in the latter, and could only be sustained by showing that the red discs in their decadence from maturity passed through a colourless invisible stage. In such a case also invisible colourless discs would be normal elements of the blood, and not the products of post-mortem change, or of the methods, as contended.

The ordinary methods of examining the blood, such as have been practised for over two centuries, are of course exonerated from the charge of producing these invisible colourless discs, therefore it is clear that they cannot be regarded from this point of view as the product of the mere shedding of the blood, for if so they would be present under all circumstances in shed blood, and could not be engendered by my "peculiar methods of working," which then could only have the merit of showing them; but however blood is obtained, or however examined, fibrin invariably presents itself. How are the decolourised discs which give rise to it produced when my methods are not used? If the fibrin factor of the blood is a decolourised disc, then in all cases in which fibrin is formed unstable discs must become decolourised; and as fibrin is always formed, so discs must always decolourise, whether my methods or any other be used. In the special method used in these experiments—viz., "the isolation method,"—up to the point when the cover is raised the blood is under the precise conditions of an ordinary examination; and as the changes which these corpuscles undergo in their transformation into fibrin bear a relation to the time the blood remains undisturbed, and as these changes can be more or less perfectly watched without disturbing the cover-glass, it is obvious that the act of raising the cover-glass and removing the serum, or the bulk of the blood, has no part in producing these changes, but simply permits of their more easy and detailed examination. All this goes to show that the changes in the corpuscles which lead to fibrin-formation are not due to any methods peculiar to myself; and if these corpuscles do not exist as normal constituents of the blood, in accordance with my contention, they must be referred either to changes effected by the mere act of shedding the blood, or to the fact of unstable corpuscles coming into contact with ordinary matter.

This reviewer evidently does not consider the colourless discs to be present in the blood, immediately after it is shed, for it is contended that to mix it in a watch-glass with osmic acid prevents their formation; and under this view they could not be the product of post-mortem change, as alleged; but we have seen that the colourless discs are really present when osmic acid is used, and more, even when the blood passes directly from the bloodvessel into osmic acid, placed on the end of the finger and pricked through, which leaves little margin for change either from the influence of shedding the blood or the action of ordinary matter, unless, indeed, such change be ascribed to the osmic acid itself, which would be nothing less than reversing its leading property—viz, that of fixing the hæmoglobin. All the facts, therefore, conspire to prove that the invisible colourless disc is a constant constituent of the living circulating blood, whose normal function is the development of the red disc, and abnormal one the formation of fibrin.

It is almost unnecessary to say that all my reviewers do not regard this doctrine of fibrin-formation with equal complacency, hence such criticisms as the following are frequent: "We demur to the theory that the substance or enclosed material of these pale corpuscles constitutes the fibrin of the blood. We accept it as proved that the main bulk of the coagulated fibrin is derived from the liquor sanguinis, and that only a substance of small amount which excites the other to coagulation flows out from the corpuscles. Not only the researches of Schmidt, but those of Lister and the old observation of Buchanan, sufficiently show this to be the case." It is with extreme diffidence and reluctance that I oppose myself to the views of these illustrious men, but I am convinced that the subject has been looked at too exclusively from the chemical aspect, and that in the precise ratio in which it is studied from its morphological bearings the che-

[2] Proc. Birm. Phil. Soc., 1878, p. 13. [3] Ibid., p. 16.

mical theories of coagulation will be weakened and modified. I have before stated that the most important generalisations in regard to coagulation have been unfortunately arrived at from the study of pathological fluids and of liquids charged with corpuscular elements, and not from the direct study of the blood itself. To the theory that fibrin exists in solution in the liquor sanguinis, I am prepared to oppose the fact that all power of coagulating can be removed from this liquid by subjecting it immediately the blood is shed to a perfect method of mechanical filtration. It may be urged that I thus prevent the passage of the ferment into it, but I reply that such liquor sanguinis does not even contain the "substrata of coagulation"—in other words, it gives no precipitates with solid salt or carbonic acid, and therefore does not contain the substances known as fibrinogen and fibrinoplastin, so freely yielded by hydrocele and other transudates and by the serum of coagulated or defibrinated blood, but consists simply of albumen, water, and salts.

The following are some of the reasons why the invisible, colourless disc must be regarded as a constant and normal constituent of the living blood:—1. It is present in the absence of every condition which has been speculatively put forward as capable of producing it, such as solution of hæmoglobin, pressure or compression, violence, contact of two glass surfaces, removal of serum, post-mortem change, mere shedding of the blood, &c. 2. It is present in its usual numbers when the blood has been diluted (as for blood counting) with a 5 per cent. solution of sulphate of soda, a liquid universally held to be the best known preservative of the blood. 3. It is present as usual when that special preservative of the red discs—viz., osmic acid—is used in proportions and strength the same and also greatly exceeding those held to be necessary. 4. It holds no relation to increase or diminution of hæmoglobin in the liquor sanguinis, and is present in its usual numbers when the surrounding liquid can be shown by the spectroscopic and photogenic tests to contain a mere fraction of the amount of hæmoglobin necessary to account for its presence on the hypothesis that it is a decolourised disc. 5. It is present, and is seen in a few seconds, when a method is employed which appears absolutely to prevent any exosmose of hæmoglobin, even though the specimen be kept for eighteen or twenty hours (colloid method). 6. It is present when the blood is diluted with a solution made by adding five grains of sulphate of soda to 100 grains of a 2 per cent. solution of osmic acid, thus combining the preservative powers of the two substances in their recognised strengths. 7. It is present when the blood is diluted with a solution made by dissolving hæmoglobin in water to saturation, and then adding an amount of sulphate of soda sufficient to make it into a 5 per cent. solution. It is scarcely conceivable that the corpuscles could yield up their hæmoglobin in such a diluent. 8. The colourless discs possess the chemical and physical characteristics of lymph-corpuscles, and have scarcely anything in common with the stromata of red discs. 9. They are present in the contents of the blood-glands, and in the lymph fluids, before these are poured into the blood, and therefore necessarily in the blood itself. 10. Their analogue in the ovipara can be detected by means of its nucleus in the living circulating blood.

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THE

## ENCEPHALIC CENTRE OF PERCEPTION; ITS SITE AND SECONDARY NATURE.

BY BRIGADE-SURGEON T. OUGHTON, A.M.D.

BY centre in neurology is usually meant an anatomical disposition of grey neurine (ganglion), marking the afflux and efflux of nervous currents. They may be irritative or sympathetic, excito-motory or spinal, sensori-motory or thalamo-striate, and ideo-motory or cortical. The emotions have been ranked as ideo-motory, and seem to hold the same relation to the ideational cortex that insensible reflex phenomena, such as the movements of the toes of a paralysed foot when tickled with a quill, hold to the conscious and normal excito-motory phenomena of spinal centres. As being equidistant from the sites of an external stimulation and its corresponding motor response, they have been correctly designated as centres; but their immense variety (respiratory, deglutitory, circulatory—thermic?—sexual, sensori-volitional, &c.), the incalculable number in many varieties, and the very free intercommunications between one variety and another by nervous threads, render the term anything but significant, excepting in the solitary sense alluded to; one might with almost equal propriety apply cellular centre, as an anatomical expression, to every cell in a vital organism. A better designation, perhaps, would be neurile reservoirs, or neurophores (analogous to electrophores), derivable from their faculty of storing up incident impressions to evolve them as nervous energies (unconscious), voluntary acts, as instanced in writing or other manual operation, or memories (conscious) at some future period of emergency, either vegetative, optional, or intellectual. The centres of secondary perception may be typified by the centre of motion of a gyrating wheel, both being effected by an intrinsic reacting on an extrinsic force; in the case of the wheel, its intrinsic shape and pivoting react on the applied force to generate a plane of motion together with its centre, and in the case of the perceptions collectively the intrinsic force of sensation reacts on the extrinsic force of a secondary (muscular) perception, to produce a centre of apparent direction holding a defined relationship to the corresponding objective during its gyration about it by muscular influences. Secondary centres are very numerous, but infinitely fewer, of course, than primary centres (the co-efficients of impressed sensitive points). My present object is to indicate experimentally that secondary centre to which all the rest are subordinated, and to offer my views explanatory of the observed fact.

Every articulation in exercise during voluntary movements is more or less a centre of secondary perception. Let it be noted how the apparent direction of an object held in the hand is modified by its relation to the elbow-joint as a centre, or by its relation to the shoulder-joint during rotations of the arm. Here is evidence that secondary centres are physiological essences whilst being mathematical abstractions; there is no anatomical nerve-cell to mark their site, but, like Euclid's point, they are very real, and they supply additional proof that the conscious is intimately blended with the unconscious, if not determined by it wholly. Next, as regards subordination, it has been shown elsewhere that the secondary perceptions of distal segments are in sensorial abeyance to the proximal segments of the extremities, and that perceptions resulting from tactile movements are in abeyance to those that are due to visual movements. Such observations all point to the existence of a prime centre of secondary perception. It would be as impracticable to perceive the whereabouts of the hand without the dynamic medium of the muscles moving the wrist, the elbow, or the shoulder, as it would be to describe a circle with a portion of the pair of compasses or generating radius cut away. This is offered, further, as a proof that the abeyant property of secondary perceptions subserves the purpose of enabling sensational points to hold a direct relation to the percipient centre, whilst at the same time permitting an independence of perceptive action to exist between various segments or parts. When the face is turned over the right shoulder, for example, that the eyes perceive an object immediately before them to the right indicates an abeyance of the ocular muscles to those rotating the head; yet the ocular muscles retain an independence of action, enabling an object to be perceived behind during the rotation of the right eye outwards, or before during its inward rotation. The backward or forward relation of the object to the centre of perception is due (as previously shown) to an insubordinate abeyance—that is, abeyance coupled with independence.

There are other than articulatory perceptive centres; we know that the organs of sight contain a globular lining of sensational points, and that the centres of visual perception coincide with their centre of motion during the exercise of monocular vision. How is it with the spheroidal cranial cavity, to which the occipito-atlantal and the atlanto-axoid articulations are affixed? This question is a natural one, but not so easy of a demonstrable solution. It may be anticipated that the encephalic centre is analogous to the centre of visible direction, being intracranial as this is intra-ocular, and that its site does not correspond with that of the articulations in question, notwithstanding they are intimately concerned in its production. Our further analysis of the present topic will consist in reducing all secondary perceptions to one or other of three planes of direction, either isolated or combined—namely, (1) an antero-posterior vertical plane, having reference to all dextral and sinistral perceptions; (2) a lateral vertical plane, related to all forward

and backward perceptions; and (3) a horizontal plane, holding relation to all upward and downward perceptions. It will be obvious that the points of intersection of three such planes will mark the position of the required centre. Both visual and tactile experimentation must be resorted to in determining the position of the above planes; also the most atural perceptive posture of the body must be assumed—that is, with trunk and head erect, and face directed evenly forwards.

Regarding the first, or antero-posterior plane, there will be no difficulty in assigning it to one that is described about the median line of the trunk. Any cutaneous point to right or left of this line will be correspondingly felt or seen, and the same for any detached visible object. Its motor causation is obviously related to the symmetrical distribution and course of voluntary muscles, together with the absence of muscular fibres in the median line. In the latter resp ct it will be found to differ from the other planes, and I think that this characteristic confers on it a superior status, as it were, so that notions of right and left probably precede those of before and behind, or above and below. Furthermore, these notions or perceptions seem to be mainly attributable to the lateral rotations of the head about the odontoid process of the axis vertebra, and the median plane of direction would divide this process into two symmetrical halves.

Experimentally the second, or lateral vertical plane, is described on a line uniting the two external auditory meati. If a pencil be carried in contact with the face round the temple from before backwards, it will be felt a lateral and anterior object until it reaches the meatus, and on arriving at the mastoid process it will be perceived laterally and posteriorly. Again, let a lateral visible object at a few inches' distance be similarly carried backwards, and its motion followed by rotating the eye outwards, it will be seen in front until it becomes nearly lost to vision, when it will appear to be neither a backward nor a forward object, but lateral, and its present position will be opposite the meatus. Associated with this plane are, in all probability, mainly the abeyant forward and backward movements of the arm, together with the progressive movements of the lower extremities; also the nodding motions of the head; also lateral rotations of the head when aided by the eyes, noticeable in the instance of turning the face towards the shoulder. It is an interesting fact, in reference to the motor causation of the said plane, that a line uniting the two meati will be found to bisect both the odontoid process and the occipito-atlantal articulation—that is, the joints that are engaged during nodding and lateral rotation of the head.

The third or horizontal plane is very distinctly definable by experimental observation as one that is described on a line uniting the two centres of visible direction (binocular axle); (*a*) visible objects that are stationed either above or below such a plane are diagnosed as being upper or lower correspondingly; (*b*) a foreign body in contact with the shoulder is regarded as being below—that is, generating a downward directive perception; and similarly with the chin or the tip of the nose. Here an apparent inconsistence is presented, in that (1) the hand indicates upward and downward perceptions as dating from the shoulder-joint, noticeable when pointing upward to a pinnacle or downward to a rivulet in the bed of a gorge; and (2) the chin is above the shoulder level, whilst giving a general perception of being below when felt by the hand. Nothing will suffice to adjust this unexpected result short of the doctrine of the abeyance of tactile to visual secondary perceptions; and the doctrine is a highly important one, inasmuch as it refers the motor causation of the present plane to the muscular influences of the elevator and depressor ocular muscles. An experiment endorsing this doctrine is contained in my recent paper on the "Motor Causation of the Secondary Perceptions;" I would merely enforce it here by the simple observation that any object held in the hand (a watch, for instance), is actually felt by the fingers to be very much smaller at arm's length than when near at hand—that is, providing the object is being visually examined at the same time;[1] (*c*) a foreign body in contact with the forehead is perceived to be above; wherefore should the nose be felt downward and the forehead upward if the said plane be not determined by ocular muscles, or if the tactile sense do not yield obedience to the visual? (*d*) on touching the globe of the closed eye, a direction will be perceived which is frontal, and neither above nor below.

Thus an ultimate fact is offered for consideration—namely, that the encephalic centre of perception coincides with the point of intersection of a vertical plane that is median, a lateral vertical plane corresponding with the line of juncture of the external auditory meati, and a horizontal plane corresponding with the binocular axle; this fact stands for recognition whatsoever may be its accepted explanation. Certainly the said centre is only in efficient operation during the most natural of conditions; let there exist but the slightest abnormality, even monocular vision, and other centres come into an independent action, clearly evidencing that the centre of perception is not the centre of every perception; indeed, otherwise, there would be but one secondary centre instead of a multiplicity, such as the shoulder-joint, centre of visible direction, and so on.

Is there any evidence of the existence of a cerebral organism which is representative of the centre in question? My opportunities of ascertaining this interesting fact, whether or no, have been but limited. On the first brain I experimented, the loosened pineal gland popped out like a kernel from a cracked almond. It would be satisfactory if this matter were determined by a practical pathologist. We are aware that Descartes fixed on the above gland as the seat of the soul, concerning whose hypothesis Muraltus has written, "Hæc (glandula pinealis) omnium objectorum motus excipit; anima in hâc solâ per hos motus sensilia externa, et omnes ideas quæ a sensibus proficiscuntur, apprehendit tanquam in centro." Bostock has criticised Descartes' idea by observing that certainly it may be noticed, but more in consequence of the celebrity of the name to which it is attached than of its intrinsic merit.[2] Is it reasonable that the prime centre should be represented by a nervous organism? Reason seems to concert with such a conclusion, in that the encephalic centre does not coincide with the site of the odontoid process (centre of motion of the head), being raised above it to the horizontal level of the binocular axle, wherein the prime centre differs from all other subordinate centres.

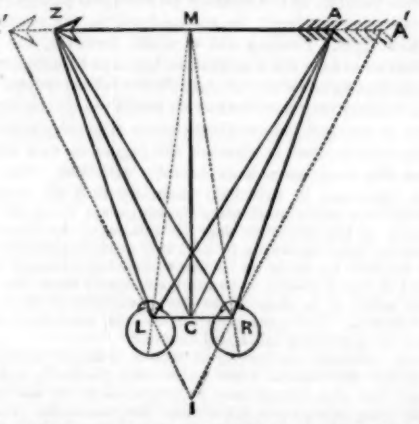
It would appear hardly consistent to conclude the present subject without noting its bearing on a visual experience not generally known—namely, that objects are seen both larger and nearer by binocular than by monocular vision. This observation was brought to my notice many years ago by Mr. George Rainey, formerly of St. Thomas's Hospital, who merely remarked that it had never been explained; the fact is that I have never come across it in any published work, and credit Mr. Rainey with its identification. If the experimenter stand a few feet in front of the window of an apartment, so that it occupy the plane of the horopter, he will find that its apparent magnitude is greater when viewed with both eyes than with one eye only, whilst its apparent distance will be diminished correspondingly. The *rationale* to be offered concerning this choice discovery is as follows:—Let Z M A in the annexed diagram represent the window as viewed by the eyes (centres of visible direction) stationed at L and R. The magnitude of the object will be correctly influenced, as Z M A, by the visual angles Z R A and Z L A of monocular vision. In the case of binocular vision, points Z and A being situated in the exterior angle of binocular convergence, the visible directions R Z and L Z, of the point Z, will be compounded into the binocular visible direction C Z; and the visible directions R A and L A, of the point A, will be compounded into the binocular visible direction C A. The resulting visual angle of binocular vision Z C A, moreover, is greater than the visual angles of monocular vision, Z R A and Z L A; I take it that this fact fully explains the window being seen nearer during binocular vision. In the next place, providing that the encephalic centre of perception coincided with the site C, the lateral points Z and A would still be seen in their normal direction along the visible lines C Z and C A; also the binocular magnitude of Z M A would appear normal and correspondent with the monocular or actual magnitude. But point I represents the centre of perception; draw the dotted lines I Z′ and I A′ parallel to the compound visible directions C Z and C A respectively; there-

[1] Be it remarked that with the unaided powers of touch, as when the eyes are closed, the apparent size of the watch at arm's length will be the same as when near at hand; but, on the contrary, vision interprets the apparent size of the watch at different distances by variations in the visual angle. These differing results in the two senses may be explained thus:—In touch, the apparent size is estimated by the flexor digital muscles, which are independent of the flexors of the forearm producing perceptions of proximity; in vision, the apparent size and apparent distance are both diagnosed by a single set of muscular fibres (ocular rotators), so as to be (without proof to the contrary) mutually interdependent.

[2] Bostock's Physiology, second edition, p. 268 (1828).

fore the lateral points, Z and A, will be visually displaced to points Z′ and A′ during binocular vision, and the window of magnitude, Z M A, will be binocularly magnified to the dimension Z′ M A′ (an illusory magnitude).

A few collateral remarks claim notice. 1st. Whether the window be perceived either of smaller or larger dimensions, its several parts will be felt normally just at those particular positions to which the directive perceptions of vision may assign them. The sense of touch, in other words, is in abeyance to the visual sense, even irrespectively of its illusory operation. 2nd. By measurement on the cranium,




the site of the perceptive centre will be found to be about 2·25 in. behind the point of bisection C of the binocular axle; this corresponds approximately, if not actually, to the distance separating the two centres of visible direction (the binocular axle). 3rd. Although the auditory and olfactory nervous apparatus are immobile *per se*, they are subject to cranial movements; muscular agency, consequently, confers the quality of exteriority (outness) as regards the individuality on every variety of sensation, and every primary sense is subordinated ultimately to the common centre of perception.

Forest Hill, S.E.

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THE

# CLIMATE OF SANTA BARBARA, AND THE NORTHERN PACIFIC COAST.

BY R. W. BURNET, M.D., M.R.C.P.,
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THE subject of climate is one that, both in its general bearings and in relation to individual places, has engaged the attention of the profession to a very large extent. Much has been written about special climates, to the exclusion, perhaps, of a broader view of the whole subject, although no one can deny that different places known as health resorts have features differing in kind as well as in degree. When, however, one sees cases that in all their main characteristics are very similar, doing apparently as well in one place as in another, it becomes difficult to believe in the specific virtues of any one place, and we are driven to ask what is it after all that we seek and expect in the places to which we send patients? In the first place, I suppose we generally desire to effect as complete as possible a change in the manner and mode of life; and, secondly, to protect the patient from extremes of temperature. We seek also to place him in such circumstances as shall, especially in the case of chest affections, secure a plentiful and continually changing supply of fresh air, with a maximum amount of sunshine. Speaking in reference to consumptives, the late Dr. Parkes, whom we all recognise as an authority in such matters, said, "The best climates for phthisis are, perhaps, not necessarily the equable ones, but those which permit the greatest number of hours to be passed out of the house." The late Dr. Hughes Bennett also expressed the opinion that the climate which enabled the patient to spend the greatest part of his time in the open air was the best, and that its advantages should be considered as largely dependent on exercise, and on the stimulus given to the nutritive functions rather than its influences on the lungs directly.

The climate of a district and of a place is of course largely dependent on the physical characters of the country, the kind of soil, the relation of the mountain ranges and their height, the nearness or distance of the sea and its temperature. Thus places in very different parts of the world, but resembling one another in physical characters, may present much similarity of climate. Compare, for example, the Riviera, lying on the shores of the Mediterranean, and the Santa Barbara valley in California, lying along the Pacific Coast. In both we have a plain, with a southern exposure, more or less sheltered from the north, north-west, and north-east by high mountains, and stretched along the shores of a comparatively warm sea. What do we find? We see that these two places, lying as they do widely apart, have not at all dissimilar climates.

The county of Santa Barbara is about seventy miles long from east to west, and thirty-five miles wide from north to south. The coast here runs for about 100 miles almost due east and west, and that part of the country lying between the Santa Ynez Mountains and the sea is called the Santa Barbara Valley. It is thus sheltered by mountains and has a southern exposure. Moreover, a chain of islands lying off the coast at a distance of some twenty miles, and rising to a height of from 2000 to 3000 feet, serve to protect it from ocean gales. The town of Santa Barbara lies on the shore about 285 miles south-east of San Francisco and about 100 miles north-west of Los Angeles. The whole of California was peopled by Indians up till the time of the first Spanish missions, about 100 years ago—the mission of Santa Barbara dating from 1786. It consisted of a few priests and a company of soldiers to protect them from Indian raids. Many of the present inhabitants are descendants of the soldiers of that garrison and of the early settlers who followed the establishment of the mission. The old part of the town still presents many characteristics of its Spanish origin, but its present flourishing condition is to be attributed mainly to the high repute it has gained as a sanatorium. This, in addition to a more or less fluctuating winter population, drawn chiefly from the eastern States, has attracted many permanent residents who have made the place their home. Here you find Englishmen, Canadians, and Americans, many of whom have acquired land in the district and have taken up, both as an occupation and as an investment, the raising of stock, and the cultivation of grain, of the orange, the olive, and the almond, all of which seem to do well. This is certainly a great advantage, especially to a young man who has to leave home for health's sake; who is sent away as a precaution, but who does not feel ill, and is not sufficiently ill to be classed with invalids. To have some out-door occupation and interest is, in such a case, more than half the cure, and this can, of course, be obtained only in a new country.

Of the climate we can speak from personal experience of only a short period in December and January, but at that season it was exceedingly pleasant: brilliant sunshine day after day, with a cloudless sky and a clear bracing atmosphere. The rains were late, and consequently the country was somewhat brown and dry, but towards the end of the year we had a thunderstorm followed by two days of much-needed rain. The average annual rainfall is not more than sixteen or seventeen inches, and it comes chiefly in November, December, January, and February. All through the winter months roses, geraniums, verbenas, &c., flourish and bloom in the open air and without shelter, while strawberries ripen up till December, the grape ripens freely in the open, and the orange, the lemon, the Japanese persimmon, and the olive are seen in full fruit in January. The summers are dry, but not very hot, the thermometer very rarely rising to 90° F. The average temperature for July is 68°, and that for January 53° F., giving a difference of only 15° F. Snow never falls, and even slight frosts are rare. The nights are cool all the year through, but never very cold, the average difference between the warmest part of the day and the coolest part of the night being reckoned 12° F. The winter months average 54° F., the spring 60°, the summer 68°, and the autumn 63°. In his statistics of temperature and the climate of the Riviera, Dr. H. Hassall gives in round numbers the following: Winter 55°, spring 59°, summer 63°, and autumn 72°, the average for the year being a little over 60°.

These figures apply chiefly to San Remo, the numbers given for Bordighera and Mentone being a little higher, and those for Nice a little lower. At the outset I alluded to the advantages of those climates that permitted the greatest number of hours to be spent in the open air. The following computation was made by a patient staying at Santa Barbara: During the year (Feb. 1st to Jan. 31st) there were 310 pleasant days, when an invalid might be out five or six hours with safety and comfort; ten windy days and five wet ones, when he would be kept indoors all day; the remainder cloudy and showery days, on which he could be out part of the day with comfort. A feature of open air life that has been largely tried, and with the best results, at Santa Barbara is camping out. Patients living there get into the habit of being so much out of doors that the transition to camp life is easy, and has been by some carried on for four or five months continuously. In California horses are plentiful, and everybody rides. The "vacquero" spends his life in the saddle. Mere children are seen mounted on a good-sized mustang, which they manage with the ease of perfect horsemanship. Visitors buy or hire horses for the season, and the invalid, too, enjoys his morning ride. As the place has grown, so pleasant society has increased, while good shops, a club, and good hotels have rapidly sprung up.

Los Angeles, which I have already mentioned, lies a little off the coast, about a hundred miles south-east, and has a climate rather warmer and drier than Santa Barbara. It is a town of considerable size, and is the centre of a large orange-growing and wine-making district. A hundred and twenty miles further south lies San Diego, with an annual mean temperature of 62°, and a rainfall rather under eleven inches. Going northwards from Santa Barbara we have Monterey, a favourite resort with the people of San Francisco, from which it is distant a little over a hundred miles, and is prettily situated on a bay opposite to Santa Cruz. At certain seasons San Francisco is much exposed to cold winds off the sea, and to escape these people betake themselves to Monterey, with its cedars and cypresses, and its sheltered situation. In December the climate of San Francisco was delightful, far more pleasant than in September, being moderately warm and equable. In summer the early part of the day was often very hot, but towards noon a cold wind would sweep inwards off the sea with chilling and penetrating force. Passing to the northward of San Francisco we have, in Western Oregon and in Washington Territory, a lower temperature and a long wet winter, with a rainfall of as much as forty-five inches or more. This district lies to the west of the Cascade range of mountains, and extends as far north as Puget Sound. Immediately to the north of this are the Straits of San Juan de Fuca, separating British from American territory. On the northern shores of the straits, at the south-east corner of Vancouver Island, the town of Victoria, capital of British Columbia, is picturesquely situated.

It is surprising, at first sight at least, to find, nearly a thousand miles north of San Francisco, a climate closely resembling that of the English south coast, having a winter average temperature of 42°F., and a summer of a little over 60°. This mildness, which extends more than three hundred miles north of Victoria, is attributed to a warm stream called the Japanese current, which strikes the Queen Charlotte Islands and flows southerly along the shores of Vancouver Island. Victoria bids fair to become a favourite winter residence and sanatorium, for in addition to the beauty of its surroundings, the fact that it has such a mild and equable climate, will, especially when the railway now in process of construction over the Rocky Mountains and through the magnificent cañons of the Fraser River is completed, attract many inhabitants of the cold north-west to take refuge on its sunny shores.

In conclusion, I would only remark that while this Pacific Coast, with its unsurpassed beauty of scenery and attractions of climate, is by distance and difficulty of travel shut off from many classes of invalids, to those who have to seek an early and permanent residence abroad it undoubtedly presents many advantages.

Wimpole-street, W.

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ALLEGED DEATH FROM THE STING OF A WASP.—An inquest was held a few days since on a lady residing near Harlow, who died shortly after being stung by a wasp. Mr. Day, M.R.C.S., stated his opinion that death resulted from syncope, induced by the pain resulting from the sting.

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# A CLINICAL AND PATHOLOGICAL STUDY OF LARYNGEAL PHTHISIS.

BY GORDON HOLMES, M.D.,
PHYSICIAN TO THE MUNICIPAL THROAT AND EAR INFIRMARY.

*(Concluded from p. 276.)*

*Pathogenesis.*—As all questions relating to the origin of tuberculosis have been reopened by Koch's discovery of the tubercle bacillus, so the etiology of laryngeal phthisis must, in some points at least, be reconsidered in the presence of the new light. Leaving out of sight, however, the great problem as to how the constitution becomes tubercular, it is evident that former observations as to the subsequent progress of the malady may not demand an entire readjustment.

One of the most indeterminate points of inquiry respecting throat consumption is whether the larynx is ever affected before the lungs have been actually attacked. The most acute observers in this field maintain that no laryngeal phthisis ever exists until after the lungs are invaded. The delicacy of the question may be estimated by instancing Ziemssen,[1] who, in trying to hold this ground, appeals to the sign notified by Seitz as to the comparative height of the lungs: if one is found to be more depressed than the other at its apex, it is decided to give evidence of tubercular cicatrisation. Yet some good authorities, such as Förster,[2] believe in a primary laryngeal tubercle.

Now, although the laryngeal lesions in an advanced state are never dissociated from pulmonary phthisis, yet it is certain that the disease may be very evident in the larynx whilst lung symptoms are almost inappreciable. And on this account formerly arose the question answered in the affirmative, though hesitatingly, by Cruveilhier[3]—i.e., whether a simple chronic laryngitis could, by developing into laryngeal phthisis, lead to pulmonary consumption. But to this proposition a direct negative can now be returned, as, in the absence of any specificity, no tuberculosis could be established. At the same time it may be logically assumed that such a sequence could occur, not merely in semblance, but in a practical sense. For, by the presence of a simple chronic laryngitis the larynx might become a *locus minoris resistentiæ*, and hence, whilst being initially obnoxious to phthisis, be the point of first outbreak, either through increased liability to direct inoculation or general infection by the bacillus. In conjunction with this theory, however, the question as to the necessity for a constitutional bias or receptivity would have to be considered.

A further point for discussion concerns the morbific action of the sputa ejected from the diseased lungs.[4] Most early authorities, beginning, it appears, with Sylvius, have argued that phthisical expectoration has an infective or corrosive quality. Amongst them we find Louis,[5] Trousseau and Belloc,[6] &c., who are inclined to recognise here the exciting cause of many, if not all, cases of laryngeal phthisis. So far, however, we have no conclusive evidence on this point, but Ziemssen[7] believes the shallow, extensive ulcers, or rather erosions, of the windpipe so commonly seen at the autopsy in this disease, own such an origin. Assuming slight excoriations of the larynx and trachea to exist, through the presence of simple catarrh provoked by cold or the irritating influence of a hacking cough, it has yet to be ascertained that the bacillus, being thus inoculated, would produce *in loco* a fresh deposit tubercle.

The proportion of cases of laryngeal phthisis met with amongst those of pulmonary consumption is shown by the statistics of Williglk,[8] founded on 1317 cases, as 18 per cent.; by those of Heinze,[9] drawn from 1226 instances, as 30·6 per cent. Statistics given, however, by Mackenzie[10] and Ormerod,[11] based, in each instance, on 100 cases, prove that, if slight morbid changes in the larynx are included, only about 25 per cent. of cases of lung tuberculosis can be pronounced free from laryngeal disease. It is left for the future to determine whether any uniform relations exist between the disease in the larynx and that in the lungs, as to the stage

[1] Op. cit., p. 43. [2] Lehrbuch der pathol. Anat., Jena, 1875, p. 123. [3] Loc. cit., p. 26.
[4] Morborum internorum prope omnium Curatio, &c. (Parisiis, 1545), p. 47. [5] Loc. cit. [6] Loc. cit. [7] Op. cit., p. 838.
[8] Prager Vierteljahrschrift, 1856, Bd. xiii., 2, p. 10. [9] Op. cit., p. 25. [10] Op. cit., p. 366.
[11] St. Bartholomew's Hospital Reports, 1883.

of the latter, and also as to its course, whether rapid or slow.

Sex and age are to be accounted as sources of predisposition to laryngeal phthisis. How far they are so effective is illustrated by the annexed table of 227 cases treated by the writer:—

| Age. | Males. | Percent. | Females. | Percent. | Total. | Percent. |
|---|---|---|---|---|---|---|
| 15 to 20 | 8 | 3·5 | 6 | 2·7 | 14 | 6·2 |
| 20 „ 30 | 67 | 29·5 | 32 | 14·1 | 99 | 43·6 |
| 30 „ 40 | 52 | 22·9 | 25 | 11·0 | 77 | 34·0 |
| 40 „ 50 | 19 | 8·4 | 6 | 2·7 | 25 | 11·1 |
| 50 „ 60 | 9 | 4·0 | 3 | 1·3 | 12 | 5·3 |
| | 155 | 68·3 | 72 | 31·8 | 227 | 100·2 |

These statistics show no marked divergence from similar calculations by other observers, but a few cases under ten years and over sixty have been met with by Mackenzie, Heinze, and others.

No decided predisposing influence with respect to laryngeal phthisis has been traced to occupation. There is, perhaps, some slight evidence that sedentary indoor employments favour the development of the disease.

*Pathological Anatomy.*—It is represented by Krishaber[12] that in the early or catarrhal stages the lesions are more serious than could be supposed from mere laryngoscopic observation. Rindfleisch[13] has shown that in ordinary catarrh the mucous secretions make their way through the epithelium without destroying it, and Förster[14] has carried the investigation further by proving that even in purulent catarrh the mucous membrane loses very little of its epithelium. But in laryngeal phthisis the epithelium desquamates at a very early period, and a purulent exudation is quickly established from the denuded surface.

The ulcers in laryngeal phthisis are found to have different modes of origin, and hence to exhibit several distinct forms. For, in addition to those pathognomonic ulcers arising from deposit of tubercle, three other kinds have been distinguished by various observers. These latter, though not indubitably peculiar to phthisis, have nevertheless characteristics which are apparent only when they are associated with that disease.

(*a*) The tubercles of the larynx have the intimate constitution of those found elsewhere. Their progress is best described by Fränkel,[15] the most recent observer. They are first deposited in the mucous membrane beneath the epithelium, and then by the rapid destruction of isolated or conglomerate masses of tubercle a superficial ulcer is formed, which spreads more on the surface than by penetration. The border of the ulcers is round and shows an inflamed area, and their floor is caseous and covered with detritus. Tubercles are also deposited in the walls of the ulcers; indeed, as Heinze[16] shows, their whole superficies may consist of a layer of tubercle. The tubercles are well supplied with myeloid cells, and appear to affect by preference the lymphatic tissue of Coyne.[17] Heinze[18] alone finds that, besides the fresh tubercles, there are others of "old date, with slight beginning of fatty metamorphosis or such marked caseation that only a small ring of the original form is seen."[19] According to the same authority, when the mucous membrane is infiltrated with tubercle it is thickened three- or fourfold, and he describes the state of the bloodvessels[20] in the masses of tubercle. Thus the walls of the veins are entirely replaced by tubercle, whilst the adventitia and intima coats of the arteries succumb in the same manner, but the muscular tunic exists through all comparatively intact. In fact the muscular system of the larynx holds out to the last against the morbid process, although tubercle may pursue its ravages in the connective tissue between the fibres.

(*b*) Amongst the non-tubercular ulcers are found some which arise from disease of the racemose follicles. These have been studied by Rindfleisch[21] and Rheiner[22] with especial care. The pathological process appears to be at first quite similar to that which constitutes the characteristic lesion of follicular or granular sore-throat. These ulcers occur, of course, exclusively in the track of the glands—i.e., at the base of the epiglottis, over the arytenoid cartilages and ventricular bands, below the vocal bands, and in the trachea. The follicles become distended with inspissated secretion of a caseous or curdy consistence, which exudes slowly from their ducts, appearing at the orifices as a white patch or a thread-like filament. But in laryngeal phthisis this stage, which is permanent in the milder disease, is of brief duration, for a destructive process is quickly superadded, pus is mingled with the caseous contents of the gland, the duct is dilated and eaten out, and the whole mass discharged, leaving a cup-shaped pit or cavity, which secretes pus, and soon forms a progressive ulcer. These are the accretions some advocates of the tubercular larynx formerly exhibited as tubercle, to be triumphantly proclaimed in error by their opponents, who had demonstrated the real nature of the follicular lesion.

(*c*) A third kind of ulceration has also been brought to notice by Rheiner.[23] He describes it as originating in an infiltration of the subepithelial layer of the mucous membrane with cells and nuclei. He explains it to proceed from the peculiar vulnerability of the soft parts observable in tuberculosis; and hence all parts of the larynx exposed to pressure during the varied activity of the organ are liable to be attacked by an inflammatory cell-proliferation. Although Ziemssen accepts this view unhesitatingly, Heinze[24] rejects it altogether, alleging several not very cogent reasons for his dissent, such as that the vocal processes do not come into contact during phonation on account of adjacent swelling, &c. It must be remembered, however, that Heinze[25] is inclined to attribute a more universal *rôle* to tubercle in the larynx than it clinically appears to possess; although, by his own showing, in eight out of forty-seven cases examined microscopically he could not demonstrate the tubercle.[26] Logically, it must be confessed there is good reason to believe in the correctness of Rheiner's hypothesis. Why, for instance, is the inter-arytenoid fold generally the first part attacked, unless by reason of the constant pressure to which it is subjected during phonation? Why have ulcers such a predilection for the arytenoid cartilages and under-surface of the epiglottis—parts squeezed to death, as one may say, when swollen by being jammed against each other in deglutition? Why are the edges of the vocal bands so prone to ulceration, even when no other part is affected, not only in laryngeal phthisis, but in syphilis and simple chronic catarrh? Because it is precisely these edges that bear the strain of extension and vibration during speaking, coughing, &c., being more constantly in action than any other part of the larynx. Similarly, the tissue covering the vocal processes is subjected to the most destructive kind of pressure by being stretched and strained over those hard points in phonation, even though they may not actually touch. So far, therefore, from allowing that Heinze "has disposed o Rheiner's views,[27] a little reflection will show them to be as firmly established as ever.

(*d*) Finally, we have the shallow extensive erosions of the larynx and trachea noticed by Trousseau and Belloc as being uniquely found in phthisis. These scarcely penetrate the subepithelial layer of the mucous membrane, and have a flat grey floor, often resembling, as Förster remarks,[28] a diphtheritic exudation. Their margins are neither elevated nor indurated, and they are conspicuously absent on the anterior wall of the windpipe, where, it may be assumed, the mucous membrane is least exposed to the constant passage of sputa. The presence of such solutions of continuity is thought by Ziemssen[29] to force on us the acceptance of the theory of a corrosive action of the pulmonary sputa. Yet Förster thinks that even these may be tubercular. Whether this corrosive action is to be considered as something distinct from the infective nature of the bacillus, or whether the conflicting opinions may not be reconciled by allowing a local denudative power to the bacillus, especially when resting in congregation on a morbidly tender mucous membrane, are propositions awaiting solution.

The subject of perichondritis, leading to necrosis and caries of the cartilages of the larynx, does not come within the scope of this article, although the destructive ulceration of laryngeal phthisis naturally culminates in this lesion. In

12 Loc. cit. 13 Virchow's Archiv (1861), Bd. xxi., p. 486.
14 Würzburger medizinische Zeitung, Bd. i., Hft. 2.
15 Berliner klinische Wochenschrift, Jan. 22nd, 1883.
16 Op. cit., Taf. i., &c.
17 Recherches sur l'Anatomie normale de la Muqueuse du Larynx. Paris, 1874. 18 Op. cit., p. 64.
19 See also Förster, op cit., p. 299. 20 Ibid., p. 67, Taf. iii., 16.
21 Lehrbuch der pathologische Gewebelehre, iv. Aufl., 1875, p. 325.
22 Ueber die Ulcerationsprocesse im Kehlkopf, Virchow's Archiv, Bd. v., 1853, p. 534.

23 Ibid. 24 Op. cit., p. 83. 25 Ibid., p. 43.
26 Heinze rather dogmatically remarks: "The so-called phthisis of the larynx and trachea is henceforth to be applied only to tubercle of the laryngeal and tracheal mucous membrane"; and, at the same time, he proves that in his period, before the bacillus, the ulcers could only be recognised as tubercular at the post-mortem table with the microscope.
27 Mackenzie, Op. cit., 368. 28 Op cit., p. 312. 29 Op. cit., p. 838.

the cases examined by Heinze,[30] it was not observed in connexion with undoubted non-tubercular ulceration.

*Diagnosis.*—In the earliest stages the advent or existence of laryngeal phthisis must be chiefly a matter of surmise, and the practitioner should be on his guard against predicting the misery of this disease for every consumptive patient who may fortuitously become the subject of some intercurrent congestion or catarrh of the larynx. When, however, pronounced symptoms of chronic laryngitis are present, or the peculiar tumefaction of the larynx is observed, the approach of destructive ulceration may be regarded as a matter of course, provided there is no doubt as to the chest lesion. But in the absence of decisive pulmonary evidence the ulcers have not, theoretically at least, pathognomonic characters. Fränkel,[31] however, thinks that the lenticular ulcers with the red areola can be recognised unmistakably in the first periods of loss of substance. The same authority advises the examination of the laryngeal discharges for bacilli. For the purpose a quantity may be obtained by wiping it off the surface of the ulcers with a brush, the operation being carefully watched in the laryngeal mirror. By Ehrlich's method of staining and the microscope the inquiry is completed. In practice it is seldom possible for the laryngoscopist to be mistaken about a case of ulcerative laryngeal phthisis. On the one hand the diagnosis is almost invariably affirmed by the state of the constitution and chest, whilst on the other it is clearly negatived by the well-known collateral phenomena so prominent in syphilis, carcinoma, and lupus, the only other chronic maladies in which destructive ulceration occurs. The occasional coexistence of one of these diseases with consumption must not, of course, be lost sight of.

*Prognosis.*—All that may be doubtful respecting the course and termination of a case of pulmonary consumption may be practically considered as removed by the supervention of laryngeal phthisis. This manifestation of tuberculosis not only assures, but also hastens, the fatal issue. The indefinite prolongation of life so common in purely pulmonary phthisis, as well as the possibility of a virtual cure, must not be contemplated in the presence of phthisical ulceration of the larynx. All laryngologists may be taken as in agreement on this point. Ziemssen[32] thinks that particular ulcers sometimes cicatrise, but without retarding the course of the disease, as the general destructive process continues unchecked. Out of many hundreds of cases Mackenzie[33] has only seen four in which the malady could be set down as arrested. Krishaber[34] believes that the form supposed to be initial may have an indefinite duration, but from previous statements in this article it will be readily understood that these instances cannot fairly be reckoned as laryngeal phthisis until the ulcerative stage is reached. The latter author, like the rest, allows that the disease is hopeless when fully developed. Mackenzie gives statistics as to the duration of life after the laryngeal symptoms have become prominent. Eighty-eight cases out of one hundred persons who died of the disease were fatal in periods varying from six months to two years and a half. Of the rest the longest survival was forty-nine months.

*Treatment.*—In addition to the treatment of pulmonary consumption, all laryngologists are agreed as to the palliative value of certain local measures in laryngeal phthisis. These belong chiefly to three classes—viz., application of astringents, of sedatives, and the performance of tracheotomy.

1. Astringents are of use in modifying the condition of ulcers, especially by reducing their irritability, and there is no doubt but that they will often cause the non-tubercular ulcers to heal. Solution of perchloride of iron (60 to 120 grains to the ounce) is probably better than any other remedy of this class. It may be applied to the larynx with a brush once or twice daily.

2. Sedatives are imperatively demanded when the pain of deglutition is severe. Under this heading morphia alone needs prominent mention. If administered by the mouth or hypodermically it is effectual; but when applied locally experience shows that it acts, not only more directly, but in a more restricted manner as regards the laryngeal symptoms. An eighth of a grain of muriate or acetate of morphia mixed with three or four times its bulk of powdered starch may be blown into the larynx through the curved tube once daily, or every morning and evening. This insufflation is decidedly superior to any other means of applying the sedative. Some practitioners, however, prefer the drug in a fluid vehicle, mixed with glycerine, for example. Krishaber[35] employs a solution in cherry laurel water of equal parts of extract of opium and extract of belladonna, about six grains of each to the ounce.

3. Although tracheotomy in laryngeal phthisis has not found much favour in this country, it has been extensively practised in America and on the Continent. Unless for the actual relief of dyspnœa, the operation has not hitherto been resorted to by British practitioners. Its performance is advocated, however, at a comparatively early stage, in order to bring the larynx into such a state of rest as will facilitate the healing of ulcers, or check their tendency to spread as far as it may depend on mechanical irritation. The experience of Lefferts[36] supports this view, and his opinion is that "tracheotomy when not left till too late is to be recommended in all proper instances, through being sometimes curative and generally palliative as a means of prolonging life by relieving suffering."

Finsbury-square.

[30] Op. cit., p. 71. [31] Loc. cit.
[32] Op. cit. [33] Op. cit., p. 883. [34] Op. cit., p. 661.

## THREE CASES OF CHRONIC OSTEITIS OF THE LOWER ENDS OF TIBIA AND FIBULA.

BY R. W. GREENISH, F.R.C.S.,
LATE HOUSE-SURGEON, ASHTON-UNDER-LYNE INFIRMARY.

THE somewhat unusual occurrence of three patients with chronic osteitis of the same bones in a hospital together, and some points connected with the treatment, have induced me to place these cases upon record; and I have to thank Messrs. A. Hamilton and W. H. Hughes, surgeons to the institution, under whose care the patients occurred, for permission to do so.

CASE I.—E. N——, aged seventeen, cotton weaver, was admitted into the Ashton Infirmary, under the care of Mr. W. H. Hughes, on Sept. 1st, 1880. She stated that six years before admission she injured the right ankle by falling with the leg doubled under her; the ankle felt weak for a fortnight or so, but became quite strong again till three years ago, when it began to feel tired, and since then has been steadily getting worse. The ankle has been larger than the other for two years, and for twelve months has been so bad that she has been unable to put the foot to the ground. Nothing of importance in previous or family history. Patient was thin, otherwise healthy. On the right leg there was a marked enlargement of the lower two inches of the tibia, which was fully half as large again as that of the left side; it was hot to the touch and extremely tender; the soft parts in the neighbourhood were somewhat swollen, and below the tip of the inner malleolus there was a fluctuating swelling. The lower end of the fibula was also much enlarged, and extremely tender. The pain was of a dull aching character, and much worse at night. For the first five weeks the patient was kept in bed and an evaporating lotion applied; from half a grain to a grain of opium was required every night to obtain sleep. On Oct. 24th an incision was made over each malleolus down to the bone. On the 26th the patient was free from pain.—Nov. 11th: Pain had gradually reappeared, and is now as severe as previous to operation.—Dec. 22nd: This morning the lower ends of both tibia and fibula were trephined, an ordinary cranial trephine being used; on the tibia a hole three-quarters of an inch deep was made, the bone being so soft as only to be removed in pieces; on the fibula a cylinder of bone an inch in depth was taken away; the bone appeared rather more dense than normal cancellous tissue. No cavity was reached. Dressed with carbolic oil.—Dec. 26th: No pain.—Jan. 1st, 1881: Pain returning. On Jan. 7th the pain was as bad as before the operation, and on Feb. 17th it was noted that the pain was not constant, being some nights quite absent.—April 4th: Pain very severe every night. The fibula is still tender, but the tibia only on very firm pressure.—24th: An incision was made this morning over the fibula, and several holes were made with an Archimedian drill.—May 7th: The pain not so severe as previous to the last operation, and is still tender over the fibula and between the bones in front.—June 24th: The patient was

[35] Op. cit., p. 674. [36] Op. cit., p. 236.

discharged, her condition being about the same as described in the last note, requiring morphia nearly every night. From the present house-surgeon, Mr. Payne, I now hear that the patient was readmitted in September, and had the fibula gouged, after which she was almost well, having only slight pain in the tibia. The measurements of the ankle were interesting. On Nov. 6th, 1880, the right measured 10 in. in circumference, as against 8 in. for the left; on Feb. 17th, 1881, the right measured 9½ in.; April 4th, 9 in.; showing a decrease of 1 in. On admission some trials were made with Sequin's thermometer to ascertain the hottest part of the affected ankle, with the result that over the fibula 6° were registered, against 4⅔° over the inner malleolus, and 3⅓° in front of the ankle.

CASE 2.—E. B——, aged twenty-one years, weaver, was admitted on March 20th, 1881, under the care of Mr. Hughes. Eight years ago she sprained her left ankle and was laid up one year with it. She got better, but still had pain in it after a long journey. Two years ago the pain began to get worse, which she attributed to having to stand longer hours at her work. Had worked up to the time of admission, but often only two or three hours a day. Patient was to all appearance in perfect health. The lower two inches of tibia and fibula of the left foot were enlarged, the tibia being quite half as large again as on the right side. Measurement gave one inch increase, and Sequin's thermometer showed 2° greater heat. The pain was so severe as to require morphia every night. As rest in bed and counter-irritation produced no improvement after a month's trial, it was decided to trephine both tibia and fibula, as in the previous case. After the operation the patient was quite free from pain, and when last seen, seven weeks later, there had been no return.

CASE 3.—H. W——, aged sixteen, piercer in a cotton-mill. Ankle has been bad seven weeks, but the pain did not commence till a fortnight later. Can give no cause for it. The pain is severe, but only at night. The patient is fairly healthy looking, but has enlarged submaxillary glands. The lower three inches of tibia of left side are enlarged to nearly double, and somewhat tender to pressure; fibula is also enlarged, but not to the same extent. Sequin's thermometer showed 1° to 1½° more warmth for the affected ankle. On March 29th, 1881, an incision was made antiseptically along inner malleolus down to the bone. After the operation the patient still complained of pain, though it was not so bad.—April 26th: Measurements showed a circumference two inches in excess of the right. On April 30th an abscess appeared over the lower end of the fibula, which was subsequently opened and healed without any trouble. On June 8th there was a diminution of half an inch in the size of the ankles; no pain. By June 27th he was able to walk without any pain. The subsequent history, however, showed that the relief was only temporary. In November both bones were trephined, after which he was again free from pain.

Cases in which an abscess or abnormal cavity has been found, on trephining a bone for chronic disease, are not uncommon. Thus out of 34 cases that I have been able to collect[1] in which this operation had been performed, one of these two conditions was found in no less than 30 of the number, while in four only could no trace of either pus or cavity be seen; of the 30, pus was found in 22, and a simple cavity in 8. It is, of course, impossible in the cases I have reported to assert positively the absence of a minute abscess, as this might very well have been overlooked; still it must have been very small, as nothing of the kind was noticed during the operation, and no subsequent discharge of pus took place. An interesting point in these cases seems to be the complete, though temporary, nature of the relief obtained from simply incising the periosteum; this is, I think, to be attributed to the transudation, which takes place through the bone, between the medullary cavity and the exterior; this would relieve the tension inside, but would cease as soon as the surface became covered with granulations. Whether any operation short of trephining would have given sufficient relief is doubtful, and to judge from the first case it is probable that linear osteotomy, as recommended by Mr. Erichsen, would have been only of temporary service.

One point in which these cases differ from those that I have seen reported is the fact that both bones were affected, and to a nearly equal degree, so as to require an operation on both. In only one were there any constitutional symptoms that might be held to account for it; in both the others could the disease be traced to an injury. Bearing on this is a fact which I have noticed in compound wounds of the ankle—viz., that in all the cases I have seen, four in number, where the injury was limited to one side of the joint, there has occurred an abscess on the opposite side of the joint, and which in three healed without any trouble. In the third case, given above, a simple incision over the tibia was followed by an abscess over the fibula. These cases are too few to allow of any conclusions being drawn; still I think they point to some sort of relation existing between the two epiphyses, possibly through the blood or lymphatic channels, so that disturbances in the one may be transmitted to the other, similar perhaps to the periostitis which is so often seen as a result of osteo-myelitis.

London, N.W.

[1] Reported by Gosselin, Duplay, Porter, Trélat, and Morris.

## REMARKS ON A CASE OF SO-CALLED HYSTERIA.

BY J. B. FOOTNER, F.R.C.S. ENG.

ABOUT eight months ago, a well-nourished though somewhat anæmic young woman, unmarried, aged twenty-five, came to me for advice. She said that she had recently lost the use of her right thumb, and that her right arm was weaker than the left. She could not account in any way for this. About a year previously she had had sores on the right wrist, which, she said, took a very long time to heal. Apart from this her general health was fair, with the exception of some slight dyspeptic derangements. On examining the right arm, it was not found to be wasted as compared with the left; the muscles of the ball of the thumb were, however, distinctly so, probably from disuse. I treated her by the application of the interrupted current to the muscles of the arm and thumb, and gave her arsenic internally. The arm and thumb soon began to improve under this treatment.

About a month after her first visit she informed me that some sores similar to those which she had had a year ago had broken out on the back of her right hand and wrist. These sores presented a peculiar appearance, quite unlike any normal pathological process. They were about three-quarters of an inch in length and one-quarter of an inch in breadth, longitudinally oval. They resembled very much the appearance produced by a blister with the cuticle entirely removed, and no sign of it left, but only a bare raw surface bathed in serum. There were next to no traces of inflammation. The sores were four in number, each of similar size, shape, and appearance, and in the long axis of the limb. I ordered the application of zinc ointment.

She returned after a few days. The sores were no better, and had evidently been irritated. Having no doubt of this latter fact, it seemed to me the best plan would be to cover the sores with strapping extending continuously from below the situation of the sores to above them, as one straps an ulcer of the leg. This was done, and as she could not get at the sores they quickly healed. The strapping was continued for a fortnight afterwards. The ulcers were very soon reproduced, and also another of exactly similar appearance longitudinally over the insertion of the right deltoid. Strapping was again applied, and continued for four weeks, in the hope that by this time the patient would have forgotten about the sores. After this, for a week or two no ulcerations appeared; but soon she came again, with similar productions round the mouth just bordering on the lips. It was manifestly impossible to apply strapping here, so lunar caustic was freely rubbed over the raw surfaces, hoping that the pain would act as a deterrent, and it did. She continued free from sores after this. Her right arm and thumb are now as strong as the left.

Quite recently she has reappeared with sores on the same wrist as before, for which I am adopting the same treatment. Had this been a hospital case I should probably have been able to discover how the sores are produced; but as she has a father a chronic invalid and a mother just recovering from hysterical paraplegia and aphonia (a bad nervous family history, be it remarked), it was useless to expect any assistance from them, and quite possibly they would not have believed that their daughter was the originator of the sores. I think the best course was to endeavour to outwit the patient.

A very interesting case at the North-West London Hospital of a somewhat similar character is reported by Dr. T. Colcott Fox in THE LANCET of Dec. 30th, 1882. In his case the girl confessed she had produced the sores partly with her nails, but mostly by continual rubbing with the tops of her fingers. It seems probable that the cause in my case is similar. Her right arm being weak, it can be readily imagined that she would use her left arm to produce these phenomena. She is not naturally left-handed.

Tunbridge Wells.

## SCARLET FEVER IN ITS RELATION TO THE PUERPERAL STATE.

BY J. T. BURGESS, L.R.C.P., L.R.C.S. EDIN.

THE two following cases are interesting, and, I trust, worthy of record as illustrating a connexion between the scarlet and puerperal fevers. They at the same time throw some light upon the questions relating to the period of incubation and to the vitality of the contagious principle of the former disease. Lastly, they painfully demonstrate the fearful responsibility that devolves upon the medical practitioner towards his lying-in patients during the time he is in attendance upon scarlatinal cases.

On Nov. 20th, 1882, Mrs. A——, aged twenty-two, residing temporarily in an isolated cottage in a sparsely populated district, was delivered of a first child. The labour was tedious, and eventually was terminated with forceps, the child being stillborn. The mother, however, progressed satisfactorily until Saturday, Nov. 25th, when she became somewhat feverish, and complained of sickness and diarrhœa. The next day (26th) the throat was sore, temperature 102°, and a slight rash was noticed on the upper parts of the body. This, during the next few days, became of a bright uniform scarlet, ran the usual course of a scarlatinal eruption, and was followed by free desquamation. Thus far no other complication had arisen, but on Wednesday (29th) a change for the worse occurred, the temperature, which had become almost normal, rose to 103°, the body became tympanitic, lochia slightly offensive, and intellect clouded. A hospital nurse was at once sent for, and the next day a consultation was held with a neighbouring practitioner. Symptoms of exhaustion, however, such as muttering delirium, picking at bedclothes, dry brown tongue, &c., set in, and the tympanites increased. Patient sank on Sunday morning, Dec. 3rd, thirteen days after delivery, the temperature, as taken by the nurse shortly before death, having reached 106°. The origin of the poison in this case was at first difficult to discover. There had been no recent case of scarlet fever in the neighbourhood, and I failed to trace any exposure to infection on the part of patient, nurse, or medical attendant. The following is the only solution of the problem, which, after most careful inquiry, presents itself. The patient, upon marriage, was compelled to make temporary use of a cottage which had been empty for some time, and was condemned to be pulled down. The occupants of this cottage, who left it twelve months previously, had all suffered from scarlet fever, and the house had never been disinfected. The bedroom in which my patient was confined had to undergo a certain amount of preparation immediately before the event came off, and amongst other things, in order that the fireplace might be available, a quantity of old sacking was removed from the chimney. To this disturbance I am inclined to attribute the setting free of scarlatinal poison.

Whilst in attendance upon the above, I was called upon, Dec. 1st, to attend M. G——. This patient resided seven miles distant from the previous case. There had been no scarlet fever in her village, nor, as far as could be ascertained, could she have had communication with anyone suffering from that disease. M. G—— was twenty-two years old, unmarried, and was prematurely delivered in the early morning of Dec 2nd of a small weakly child which died during the day. About 11 A.M. the patient had a slight convulsive seizure, to which no importance was attached, as the girl had frequently shown symptoms of hystero-epilepsy during the two previous years. On Monday, Dec. 4th, however, a severe rigor took place in the afternoon, followed by a feverish state at night. A dose of castor oil was administered, after which a troublesome diarrhœa persisted for about a week. On the 5th the throat became sore, and the feverish state continued. On the 6th I was called up at midnight, and found the patient delirious and more feverish, the throat much inflamed, but no appearance of rash. On Saturday evening (8th) the patient was decidedly worse. Irregular patches of dull red eruption were visible on various parts of the body, delirium had increased, the abdomen was greatly distended, and exhaustive symptoms were becoming prominent. During the next week there was very little change, except that desquamation manifested itself and went on freely. The urine, though at first scanty, was passed in fair quantity, but was slightly albuminous. The diarrhœa ceased, and it became necessary to administer aperients. All this time the body remained much distended and painful in the hypogastric region. On the 16th the patient complained of pain in left side of thorax, which was easier on the 17th, but worse on the 18th, when the respiration was 38, pulse 158, and temperature 103°. There was some dulness at the left base and a slight rubbing sound above, probably pleuritic. The next two days saw symptoms somewhat better, but on the 21st there was a decided change for the worse. Pneumonia and the greatly distended abdomen were together telling upon the respiratory function, respiration being 48, pulse 174, and temperature 104·6°. The skin was pale, lips livid, and face anxious-looking, though the delirium had passed away. After again rallying on the 22nd, the patient sank from exhaustion on the 25th. On the 17th, a younger sister in the same household, who had been in close attendance upon the patient, became feverish. On the 18th rash appeared, accompanied with slight sore-throat, and during the next few days she passed through a mild attack of scarlatina.

That the foundation disease in both these puerperal cases was scarlet fever can scarcely admit of doubt. The clinical history of the first case was well nigh typical, and any shade of hesitation about the second was dispersed by the appearance of the disease in the younger sister. Had this second case stood alone, the real nature of the foundation disease might possibly have been overlooked, owing to the irregularity of the eruption both as regards time and appearance, notwithstanding the presence of sore-throat and subsequent desquamation. The more important complications appeared to take the form of serous inflammations, and to be exaggerations of the after-consequences rather than of the primary symptoms of the disease. If we accept the theory that the first case received its contagion from the cottage itself and on the day of confinement (Nov. 20th), we find a period of five days to have elapsed before the first manifestations of symptoms. In the second case, supposing the medical attendant to have conveyed the infection at the time of parturition, the period of incubation was only three days. In the young girl's case it is difficult to state any definite period of incubation, since it is impossible to fix the exact date upon which she received infection. In the absence of other explanation the first case tends to prove that the vitality of the scarlatinal germ may, under favourable circumstances, continue for at least twelve months, a period much beyond its usually allotted span. It is needless to add that, as soon as the suspicion of the nature of the second case dawned upon me, I at once gave up attending puerperal cases and continued to do so till a month after the death of the patient. During that time I thoroughly fumigated all clothing, instruments, &c., and submitted myself frequently to disinfectant baths. I am thankful to say that, on renewal of midwifery practice, no further calamity has occurred.

Spilsby, Lincolnshire.

THE SANITARY INSTITUTE OF GREAT BRITAIN.—The autumn congress for 1883 of this association will be held at Glasgow from the 25th to the 29th of September in the St. Andrews halls, under the presidency of Professor G. M. Humphry, F.R.S. The exhibition in connexion with the meeting will be open in the Burnbank Drill-hall from September 25th to October 20th. The congress will be divided into the following sections:—(1) Sanitary Science and Preventive Medicine; (2) Engineering and Architecture; and (3) Chemistry, Meteorology, and Geology. The President of the first will be Professor Gairdner, M.D., LL.D.; of the second, Professor T. Roger Smith, F.R.I.B.A.; and of the third, Mr. R. Angus Smith, Ph.D., F.R.S. On the 29th Dr. Alfred Carpenter will deliver an address to the working classes. The Council invite papers on subjects mentioned in the programme, and will be glad to receive the personal co-operation and support of all who are interested in the diffusion of sanitary knowledge.

# A Mirror
OF
# HOSPITAL PRACTICE,
## BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## MANCHESTER ROYAL INFIRMARY.

### CASE OF EPITHELIOMA OF THE SCROTUM IN A YOUTH.

(Under the care of Mr. HEATH.)

FOR the following notes we are indebted to Mr. John Sheldon Withers, M.R.C.S., late house-surgeon.

W. L——, aged eighteen, a block cutter, was admitted to hospital. No tendency to malignant disease discoverable in his family. Patient had always had robust health. No history of injury or irritation. About a year before admission the patient noticed a small hard swelling as large as a marble in the right and lower part of his scrotum. It grew rapidly, reaching the size of a hen's egg in less than three months. Four months later (it had spread far in the meantime) the right inguinal glands began to enlarge and soon afterwards the left. It did not cause him pain till nine months after its commencement, when a nightly aching began from which he has not since been free. His parents discovered it only when far advanced by noticing a peculiarity in his gait.

Condition on admission:—Pain has now made his expression careworn, but for this he might be taken as the type of a healthy country lad. He is of fair complexion, rosy cheeked, and well nourished. The growth involves the whole of the scrotum; its surface is irregular and nodulated. The nodules are of very variable size, some being no larger than a marble, whilst others are as big as a small orange. At its underpart is the mouth of a sinus, which leads to a cavity in the centre of the mass. Here, whilst growth is going on actively outside, a process of destruction is at work, evidenced by the constant discharge of a thin, yellowish, opaque fluid, and occasionally of blood in large quantities. On either side, the inguinal glands form two large tuberous masses adherent to the deep structures. In the neighbourhood of the right of these, one testicle can be felt, the position of the other cannot be made out. The growth is nowhere tender to the touch, and is of uniform, moderate hardness. Owing to frequent hæmorrhages, he became rapidly worse, and died, wasted to the last degree, four months after admission. After death, the testicles were found to be quite healthy. A microscopical examination, made by several pathologists, among whom were Drs. Dreschfeld and Young of Owens College, proved the tumour to be an epithelioma. A necropsy was not allowed.

## GENERAL DISPENSARY, NOTTINGHAM.

### ANEURISM OF THE INTRA-PERICARDIAL PORTION OF THE AORTA; SUDDEN DEATH FROM RUPTURE; NECROPSY.

FOR the following interesting notes we are indebted to Dr. M. Collins.

On the morning of May 5th, Mrs. B—— was suddenly seized with præcordial distress whilst talking to some of her friends. She expired in a few minutes and before the arrival of the medical attendant, though her house was not two hundred yards distant from the hospital. The history of any previous illness was very indefinite. A week before her decease she quarreled with her husband, and had charged him before the magistrates with assault. Sudden death under such circumstances assumed an interesting nature, pathologically as well as medico-legally.

*Necropsy, forty-eight hours after death*.—Apparent age fifty-five; body well nourished; no marks of violence. When the thorax was opened the pericardium was found distended with blood. Further examination revealed a very small sacculated aneurism immediately above the right coronary valve. This had ruptured into the pericardium. The opening was small, only sufficient to admit a medium-sized probe. There was no regurgitation through the valves. The aorta was atheromatous, as evidenced by "patchy thickenings and unevenness on the inner surface."

Dr. Hayden has pointed out that aortic aneurisms never attain a large size when they are exposed to the maximum of reflux from the aorta. The symptoms and acoustic signs are very indefinite during life. Death was very sudden, and without any warning, as it usually is in such cases.

A coroner's inquest was held, and the question naturally asked was, Did ill-treatment tend to accelerate her death? There was no evidence that it did. She had not lived with her husband the previous week. The grief and anxiety consequent on her domestic infelicity may have contributed materially as a predisposing cause to the untoward event.

## WORCESTER GENERAL INFIRMARY.

### CASE OF COMPLETE SUPPRESSION OF URINE LASTING FIFTY-THREE HOURS, FOLLOWED BY CYSTITIS; RECOVERY.

(Under the care of Mr. HYDE.)

FOR the following notes we are indebted to Mr. M. B. Shirley, house-surgeon.

John ——, aged fifty-eight, came to the casualty-room, at 10 A.M., on May 18th, suffering from stricture of the urethra. He had suffered from stricture for the last twenty years, and had had it frequently dilated surgically. Lister's sounds, from No. 9 to No. 12, were passed, and the patient refusing to stay in the infirmary was allowed to go home. About 3 P.M. he was brought back, having had a rigor in the street.

On admission he complained of great pain in the lumbar region: temperature 102°; pulse quick and full. He was put to bed; brandy was given, and warm bottles applied.

May 19th, 8 P.M.: He has passed no urine since his admission.—20th, 10 A.M.: He has passed no urine, and is drowsy. Pulse slow and full; temperature 97°. His tongue brown and furred. The catheter drew off two ounces of almost pure blood. The bladder was washed out with a solution of carbolic acid, one in 100. He was ordered quarter-grain doses of pilocarpine with half a drachm of sulphate of magnesia every three hours. Loins dry cupped. 8 P.M.: The patient perspired freely during the day; still no urine passed. The catheter drew off two ounces of urine, which deposited pus. The bladder was washed out. The patient is better. To continue the medicine.—21st, 10 A.M.: Passed a little urine; still perspiring profusely. Medicine to be continued.—22nd, 10 A.M.: Has passed twenty ounces of urine during the last twenty-four hours, which deposited pus. The bladder was washed out with a weak solution of salicylic acid. The medicine stopped.—23rd: Sixty ounces of urine passed. One ounce of infusion of buchu ordered three times a day.—27th: The bladder has been washed out twice daily since the last note with a solution of salicylic acid. The urine is now passed in large quantities naturally. The cystitis is quite disappeared. The patient expresses himself as quite well.

## CITY OF DUBLIN HOSPITAL.

### MR. HENRY GRAY CROLY'S CLINIQUE.

THE following cases were recently under Mr. Croly's care, and present many points of interest:—

*Cellulitis of the Neck*.—A man, about thirty-seven, applied on July 3rd with a large tumour of the right side of the neck, which had been growing for the past six months. The posterior part of the tumour was extremely hard, and a question arose as to whether it might not be a case of medullary sarcoma. Mr. Croly used an exploring needle, which permitted a muco-purulent fluid to escape, and the man was taken into the theatre and there etherised for further operative measures. A free incision was made in the lower and anterior part of the neck, and the cervical fascia divided on a director, thereby allowing a free discharge of blood and pus. In making the necessary incisions in the neck to divide the cervical fascia, and thus to relieve tension and give exit to the infiltrated fluids, Mr. Croly sketched on the patient's neck before operating what he called "lines of safety" and "lines of danger," and which were described by him in an excellent monograph on Cellulitis, published in 1873. The lines of danger are those in the direction of the external jugular vein, which passes from the angle of the jaw downwards and outwards across the sterno-mastoid; and another line corresponding with the carotids in their course upwards and backwards.

*Burns of the Head and Face from a Gas Explosion, caused by Flint and Steel*.—This patient, a labouring man, received

his injuries in a very singular manner. He was using a pickaxe in one of the Dublin streets when, on making a heavy blow, his pick struck on a large flint, and at the same time penetrated the main gas-pipe in the street. The fire struck from the flint ignited the gas which escaped, and the workman received severe burns about the head, face, and left arm.

*Acute Œdema of Scrotum.*—A boy, aged twelve, lately came to the hospital with acute œdema of the scrotum. About four days previously he fell on the spike of a railing, which explained the inflammatory condition of the part. Mr. Croly pointed out the similarity which existed in its appearance and that which usually presented itself in the extravasation of urine. The ether spray having been applied, Mr. Croly made an incision on one side, and gave exit to some pus and fluid.

## STATION HOSPITAL, CAWNPORE, INDIA.

### CASE OF HYDROPHOBIA; NECROPSY; REMARKS.

(Under the care of Surgeon S. J. RENNIE, A.M.D.)

J. B——, Private 2nd Scottish Rifles, was admitted to hospital on Feb. 17th, 1883, complaining of pain and stiffness in his right shoulder, and spasm of the muscles of the glottis on swallowing liquids. There was no history of a bite from a dog or any other animal. The spasms were of short duration, and at first did not occur except when the patient attempted to swallow liquids, but afterwards the slightest breath of air or the application of the hand to his chest immediately produced a most distressing state of affairs. During the paroxysms great protrusion of the eyeballs was noticed. There was great mental excitement and a very heavy look about the face. The temperature was normal, and the bowels were open. He took his food well, but immediately he attempted to swallow liquids the spasm returned.

On admission, he was ordered a saline purge, and at night he had one drachm of solution of hydrochlorate of morphia. He did not sleep much.—18th: Ordered twenty minims of tincture of nux vomica, fifteen grains of bicarbonate of potash, fifteen grains of bromide of potassium, and ten minims of tincture of opium three times a day. The spasms still continue. Bowels have been opened; temperature normal. Takes his food well, which is the regulation low diet. In the evening his tongue was covered with a white fur, and the pain in the shoulder severe. Ordered compound camphor liniment to shoulder, and ten grains of Dover's powder to be taken at once. Temperature 99°; pulse 90, full and strong. 19th: Seemed a little better; ordered blister to shoulder; spasms not so frequent; to continue medicine. Evening: Much worse. Temperature 100°; pulse 112, full and bounding. Ordered twenty grains of chloral hydrate and twenty grains of bromide of potassium at once. Some delirium had now showed itself. The draught was repeated at 9 P.M., when he was very violent, and presented all the symptoms of the hydrophobic state. His face was flushed and his eyes sparkling, and he was constantly attempting to expectorate the viscid mucus that hung about his gums and teeth. He struggled in his fits, and bit and struck at everyone who came near him. The draught, which was repeated three times, had no effect on him, and it took four strong men to constantly hold him. The slightest breath of air or motion in the room was sufficient to bring on a fit of wild fury. Towards morning he seemed exhausted, and the fits became less frequent.—20th: To-day he is very delirious, but has frequent lucid intervals, in which the poor fellow begs people not to come near him for fear he may hurt them. He also seems to feel acutely his position. His constant attempts at expectoration are very distressing to him, and the saliva has to be frequently wiped from his mouth. He took some milk and beef-tea, but refused water, the sight of which at once produced a convulsion. His head was shaved and an ice bag applied to both head and spine. 10.50 A.M.: Patient has just died suddenly during a convulsion, which was apparently less severe than usual. There was no previous sign of any marked exhaustion. He had suffered considerably the previous year from acute rheumatism and also from ague, and had just returned from the hills, where he had been sent for his health.

*Necropsy, five hours after death.*—Body well nourished; rigor mortis marked; there was considerable cutaneous hypostatic congestion; no marks or scars of bites discoverable. Right shoulder especially examined. Brain: Weight 2 lb. 11 oz.; much congested; some lymph was deposited along the edges of the longitudinal fissure; arachnoid vessels congested; substance of brain firm; puncta vasculosa marked, showing congestion; no fluid in ventricles. Spinal cord: Vessels much congested; marked softening of substance in dorso-lumbar region, with inflammatory thickening of membranes; the softened spot was an inch and a half in length, and opposite the last dorsal vertebra; the cord was almost entirely disintegrated at this place, the posterior columns suffering most. Lungs: Very much congested, and exuding frothy mucus on section. Liver: Weight 3 lb. 15 oz., also very much congested. Heart: Weight 11 oz.; auricles empty; both ventricles contained dark fluid blood; valves healthy. Spleen: Weight 8 oz.; on section firm, but filled with dark grumous blood. Kidneys: Right 5 oz., left 4 oz.; both intensely congested, but otherwise healthy. Bladder: Moderately distended. Stomach: Congested; intestines contained no entozoa.

*Remarks.*—There was no history of a bite from a dog or any other animal. The man, however, was one who was always out shooting, and also kept pets, and may have fondled a rabid animal, or may have shot a mad jackal or fox, and having torn his hand with a thorn may thus have become inoculated during the process of skinning. At any rate, the symptoms were those of hydrophobia, which was borne out by the post-mortem examination, the appearances being similar to those which were observed in two cases of undoubted hydrophobia which I have had the opportunity of seeing—viz., softening in the dorso-lumbar region with congestion of the membranes, and also general congestion of all the organs of the body. The case was a peculiar one from the first, owing to the earlier symptoms being marked by the intense pain in the shoulder, but the subsequent development of the disease left little doubt as to its true nature, in which Brigade-Surgeon Carter and Surgeon-Major Irving, who saw the case in consultation concurred.

# Reviews and Notices of Books.

## SPAS AND MINERAL WATERS.

*The Mineral Waters of Europe, including a short Description of Artificial Mineral Waters.* By C. R. C. TICHBORNE, LL.D., F.C.S., Professor of Chemistry at the Carmichael College, Dublin, and PROSSER JAMES, M.D., Lecturer on Materia Medica and Therapeutics at the London Hospital. London: Baillière, Tindall, & Cox. 1883.—The treatment of various diseases by baths and mineral waters is daily attracting more and more attention. There is, of course, nothing peculiar or special in this mode of administering drugs, for mineral waters are simply medicines of complex composition, largely diluted, and containing in solution various salts and gases derived from the soils through which they pass. The book before us is replete with valuable information, and contains much to excite the interest and curiosity of those who have not made the subject a special study. We are told in the preface that nearly all the waters in general use as medicinal agents have been submitted to careful chemical analysis, the work extending over a period of nearly three years. It cannot be too generally known that the analyses of waters as given in many of our text-books are anything but reliable. They have been copied and recopied year after year, and not only has every error been perpetuated with religious fidelity, but in many cases they were originally obtained from advertisements issued by the proprietors or others interested in the springs. It should be remembered, too, that mineral waters are liable to change from time to time in chemical composition, this variation being most marked in those containing large quantities of salts in solution. During the last few years the whole subject of water analysis has undergone a complete revolution, the spectroscope now affording means of detecting small quantities of the rarer metals not possessed by chemists fifteen years ago. Professor Tichborne, for example, in 1868 found lithia for the first time in the Schwalheim waters, although they had been carefully examined by Liebig only six years previously. Another point of practical importance is that many so-called mineral water

have in reality no claim to that title, their constituents, especially in the case of sulphuretted waters, being merely the result of decomposition attending the decay of organic matter. In several instances it was found that waters supposed to possess valuable medicinal properties were little more than a mixture of sewage and water. The authors find that in most cases artificial substitutes are not at all equal to the waters they are supposed to represent, and they assert that the more complex spas can never be imitated. It must not be forgotten, in considering the composition of mineral waters, that as regards the arrangement of the elements by the chemist there is a good deal of theory. He evaporates down a certain bulk of water, estimates the relative amounts of acids and bases present, and then arranges them in his report according to their known affinities, but so many changes have taken place during the process that the arrangement which he is authorised in mapping out does not of necessity represent the true arrangement existing in the waters themselves. The authors have arranged the different mineral waters in groups according to their action: thus we have a group of purgative waters, of alkaline waters, of arsenical waters, of chalybeate waters, and so on. Each group affords material for two chapters—one devoted to a consideration of its chemical characters and the other to its medicinal uses. The book contains the results of much good sound work, and the authors are to be congratulated on the success of their efforts to treat the subject in a truly scientific spirit.

*Medical Guide to the Mineral Waters of France and its Wintering Stations.* By A. VINTRAS, M.D., Physician to the French Embassy, Senior Physician to the French Hospital in London, Chevalier de la Légion d'Honneur. London: J. and A. Churchill. 1883.—The object of this work, we are told, is to afford the means of ascertaining at a glance the chemical composition, therapeutical value, and geographical situation of the most important thermal stations in France. Dr. Vintras has consulted the latest monographs and other writings on the subject, in order to bring the information up to date, but his work is not a mere compilation, for he has personally visited all the most important springs of which he treats. He writes clearly and pleasantly, and his descriptions of Vichy, Royat, Mont-Doré, La Bourboule, and other places of resort, should add largely to the influx of English visitors. His chapter of advice to invalids who think of taking the waters is excellent. The first point on which he insists is that the patient should never go to any mineral water station without first consulting a physician. "Whatever friends or acquaintances may say, however much they may have been benefited by taking the waters at such or such a place, turn a deaf ear to their well-intentioned but very dangerous advice. Mineral waters are just as much a remedy as any medicine compounded by chemists, and their properties are as different as those of various prescriptions, although their composition appears to be the same, or nearly so. It is the *nearly so* which makes the great difference to be fully realised only by those who have made a special study of this important matter." On arriving at the springs, the first thing to be done is to call upon the physician to whom an introduction has been obtained at home, in order that his advice may be taken as to the mode of treatment to be adopted. Patients should be guided in everything by their medical adviser, and should not listen to suggestions made by persons met casually at the hotel or elsewhere. The usual stay at a mineral station is three weeks—that is, twenty-one days of actual treatment; but when this is over it is not advisable to hurry back too quickly, for the medicinal effects of the waters continue for some time longer, and if possible a week's rest should be taken at one or more places of interest on the road home. In an appendix the author gives some account of the legislative enactments relating to mineral springs in France. It appears that no spring can be worked medically or commercially without a special authorisation from the Ministers of Commerce and Public Works, and this permission is granted only after a favourable opinion has been pronounced by the Academy of Medicine. A medical inspector is appointed to every locality possessing one or more establishments of natural mineral waters, and during the season this official exercises a supervision over everything appropriated to the treatment of patients. In the appendix will also be found a series of itineraries from Paris to the principal French thermal stations, the information being clearly and concisely arranged. There are, we must admit, one or two things in this volume which have puzzled us. For example, speaking of Royat, the author says:—"The discovery that lithine (chloride of lithium) existed in considerable quantities in the Royat water has for the last few years attracted to this station a large number of gouty patients," and yet on turning to the accompanying chemical analysis, said to be the "latest that we possess," we find no mention of the presence of lithia in any of the springs. When the particular analysis was made we are not told, but it certainly differs very materially from that made by Willm in 1879, and also from that quoted in the "*Notice sur les Eaux Minérales de Royat.*" Dr. Vintras is perhaps more at home as a descriptive writer than when dealing with scientific facts.

*Hammam Rirha (Algiers), a Winter Health Resort and Mineral Water Cure combined. — Royat (les Bains) in Auvergne, its Mineral Waters and Climate.* Second Edition. By G. H. BRANDT, M.D. London: H. K. Lewis. 1883. — Hammam Rirha or Hammam Righa has recently attracted considerable attention as a health resort, chiefly in consequence of the writings of Dr. Lauder Brunton and Mr. G. D. Pollock. It is situated on one of the numerous projecting hills of the Lesser Atlas, a distance of sixty miles south-west of Algiers, and about fifty from the shores of the Mediterranean. It may be reached through France in five days with comparatively easy travelling. The passenger who leaves London on Thursday morning may see the Algiers harbour lights by Sunday night, and on Monday morning take a train for Bon-Medfa station, where a carriage can be procured which will deposit him at the hotel at Hammam Rirha in time for dinner. The cost of the journey by this route is about £20 for each person travelling first class. A cheaper way of going is by boat from London to Algiers, the passage occupying ten days each way. The waters are used chiefly for the purpose of bathing, the temperature in the swimming baths varying from 107° to 110° F. The water belongs to the class of thermal salines, its most important ingredient being sulphate of lime. In composition it agrees very closely with the water of Bath or with the famous baths of Baden in Austria. The diseases in which these waters have been shown by actual experience to be useful are gout, chronic rheumatism of all kinds, stiff tendons, erratic pains and neuralgias of rheumatic origin, and certain diseases of the bones. Dr. Lauder Brunton considers that it is the only place to which invalids suffering from gout or rheumatism can resort in winter. Mr. Pollock speaks in equally enthusiastic terms. "Individually," he says, "I owe much to the climate of Africa. A severe sufferer from rheumatism in August last, I was induced with kind friends to pass two months on the south coast of the Mediterranean, and as a result returned in full health and strength to encounter the effects of an almost arctic winter without let or hindrance." Dr. Brandt's little book is full of information and will be read with interest.—Royat is about a mile from Clermont-Ferrand, on the direct line from Paris to the Mediterranean. The

village is built at a height of nearly 1500 feet above the level of the sea between two mountains covered with rich vegetation, and at the entrance of a deep ravine scooped out by a torrent of lava. The springs, four in number, are of the same type, although they vary in the amount of solid constituents and also in temperature. They all contain the bicarbonates of lime, magnesia, iron, sodium, potassium, and lithium, together with some silica and arseniate of iron. Comparing the quantity of lithia in the Auvergne springs and other regions of France and Germany, we see that Royat heads the list. The thermal establishment is one of the finest in Europe, and from a copy of the *Journal Officiel de Royat*, received within the last few days, we see that the number of visitors is steadily on the increase. The majority of patients are probably sufferers from gout in some one or other of its manifold forms, but the waters are said to exert a beneficial effect on many chronic skin diseases, and in affections of the respiratory and nervous systems. Dr. Brandt's cases, although not very fully reported, are of interest.

*The Thermal Springs of Aix-la-Chapelle and Borcette.* By Dr. BEISSEL. Aix-la-Chapelle: J. A. Mayer. 1883.—Aix-la-Chapelle, as is well known, is now largely resorted to by sufferers from syphilis. The treatment of this complaint has become quite a specialty both at Aix and Borcette (Burtscheid), the number of visitors seeking relief steadily increasing year by year. The method employed is to rub in mercury in the form of ointment, the skin having been previously prepared for its absorption by the use of hot sulphur baths and by drinking the waters. Much apparently depends on the mode in which the inunction is performed, the rubbers at Aix being trained for the work by physicians who devote special attention to the subject. But it is not only in syphilis that the hot sulphurous waters of Aix are beneficial, for it is asserted that they prove curative in almost all forms of gout and rheumatism. In many skin diseases, especially chronic cases, the baths may be used with advantage. Dr. Beissel warns us that in acute eczema they must be avoided, for they do more harm than good. For chronic localised eczema he recommends a mode of treatment which yields excellent results in his hands. The crusts are thoroughly soaked in oil at bedtime and removed the next morning in the bath. No crust of any kind is allowed to remain on, they must be removed entirely, even at the risk of exciting bleeding. The reddened and freely discharging surface is then carefully dried and painted with a one-in-ten solution of permanganate of potash. The painting is to be repeated once or twice a day, and is to be persevered with until a black scale of the thickness of a sheet of paper forms over the eczematous spot. After this mode of treatment has been continued for a week, the dried black mass is allowed to separate and the cure is almost complete, although in places there may still be little fissures or cracks. Dr. Beissel's descriptive history of the towns of Aix and Borcette is amusing.

*Medical Guide to Contrexéville (Vosges).* By Dr. DEBOUT D'ESTRÉES, Chevalier de la Légion d'Honneur. London: J. and A. Churchill. 1883.—The mineral waters of Contrexéville have long enjoyed a reputation for the cure of stone, and they are often spoken of as "the antidote to gravel." They were found by Civiale to be specially useful in restoring contractility to the bladder weakened by chronic catarrh. In gout and its allies they prove almost as successful as in stone. Dr. Debout d'Estrées gives us in a small compass all we are likely to want to know about his favourite watering-place. He tells us how to get there, what to do when we are there, and even lays down rules for our guidance when we have ceased to be under his care. His chapter of "General Information" is interesting, and certainly practical. He reminds us that there are certain formalities to be complied with before we can be permitted to drink the waters: the first being to go to the office and pay the sum of twenty francs. He gives the prices of the baths, which certainly seem to us to be higher than at most continental watering-places. The work on the whole is well done, and will repay perusal.

*Vichy and its Therapeutical Resources.* By PROSSER JAMES, M.D., Lecturer on Materia Medica at the London Hospital. Fifth Edition. London: Baillière, Tindall, and Cox; Alexander and Shepherd. 1883.—Vichy is said to be visited annually by 40,000 invalids and tourists, so that it is hardly a matter for surprise that Dr. Prosser James's interesting little book should have run through five editions. It is readable, and contains a great deal of useful information. The present edition has been corrected up to date, the author having recently visited Vichy for the purpose.

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*Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England.* Second Edition. By Sir JAMES PAGET, Bart., with the assistance of JAMES F. GOODHART, M.D., and ALBAN H. G. DORAN, F.R.C.S. Vol. II. London: J. and A. Churchill. 1883.—This volume contains a description of more than 1500 specimens, including all those in the museum illustrating morbid conditions of the blood, injuries and diseases of voluntary muscles, tendons and their sheaths, cartilage, bone, joints, and of the vertebral column; diseases of bursæ and synovial ganglia, and distortion of the pelvis. The Catalogue testifies to the great wealth of the museum, especially in specimens of disease and injury of bones. The descriptions of the specimens are very exact and lucid, and form an invaluable guide to all students visiting the museum. The preparation of such a catalogue entails immense labour upon its authors, and it is difficult to estimate the value of the services Sir James Paget and his two assistants are rendering to the profession by this undertaking. Their best reward would be to find that the new catalogue acts as a stimulus to all who have it in their power to avail themselves of the vast stores of information collected in the Hunterian Museum.

*The Quarterly Journal of Microscopical Science.* Edited by E. RAY LANKESTER, THISELTON DYER, E. KLEIN, H. N. MOSELEY, and ADAM SEDGWICK. New Series. No. XCI. July, 1883. London: J. and A. Churchill.—The memoirs in this number are:—1. On the Ancestral Form of the Chordata, by A. Hubrecht, in which the learned professor of Utrecht, whilst admitting the validity of Ray Lankester's view, that the Tunicates are rather to be regarded as degenerate vertebrata than as representing the dawn of the vertebrate series, advances a very curious doctrine, to the effect that "the proboscidean sheath of the Nemerteans is comparable in situation (and development?) with the chorda dorsalis of the vertebrata." This view is advocated with much acumen, and supported by many arguments. 2. The Renal Organs (Nephridia) of Patella, by J. T. Cunningham. 3. A Rare Form of the Blastoderm of the Chick, and its bearing on the question of the Formation of the Vertebrate Embryo, by C. O. Whitman, Ph.D. 4. On the Development of the Pelvic Girdle and Skeleton of the Hind Limb in the Chick, by Alice Johnson, Newnham College, Cambridge. 5. The Development of the Mole (Talpa Europæa); the Formation of the Germinal Layers and Early Development of the Medullary Groove and Notochord, by Walter Heape. 6. The Tongue of Ornithorhynchus paradoxus; the Origin of Taste-bulbs, and the parts upon which they occur, by Edward B. Poulton. 7. Observations upon the Fœtal Membranes of the Opossum and other Marsupials, by Henry F. Osborn. There are eleven plates in this number.

# New Inventions.

## POCKET EMERGENCY TRACHEOTOMY CASE.

MESSRS. MAYER & MELTZER, of Great Portland-street, have made at my suggestion a Pocket Emergency Tracheotomy Case. It appeared to me that an attempt might be made to save many lives such as are now lost from diphtheria, and other affections obstructing the free passage of air through the larynx, if every medical man had at hand the appliances necessary for performing tracheotomy. I therefore suggested to Messrs. Mayer and Meltzer that they should offer to the profession an inexpensive case of instruments which should contain every requisite absolutely necessary. For this purpose three silver bivalve tubes are included in the case, one of which would fit sufficiently well for a time any patient, whatever his age, and an opportunity would be gained for obtaining a more accurately fitting tube. The three tubes alluded to as contained in the case are of sizes chosen after numerous measurements of the trachea of persons of various ages, and after reference to the table given by Mr. Marsh in his paper, "On Tracheotomy in Children," in the third volume of the St. Bartholomew's Hospital Reports. The smallest tube, seven-fortieths of an inch in diameter, could be used for any infant or child below the age of three years. The next size, twelve-fortieths of an inch in diameter, would more or less accurately fit the trachea of any child between the ages of three and twelve years; and the largest size, eighteen-fortieths of an inch, might be used for an adult or young person above the age of twelve years. The case contains, in addition, two pairs of dissecting forceps, an artery-forceps, a knife with a flattened handle, so that it can be used for scraping away or depressing the thyroid gland, two retractors, a sharp hook, a pair of scissors, and that most useful of all instruments in the performance and after-treatment of tracheotomy—viz., a Trousseau's dilator. In the pocket will be found silk or catgut ligatures, and a small card with printed directions for the steps of the operation sufficiently explicit to refresh the memory of the busy practitioner who may not have seen the operation performed since the days of his hospital studies.

W. E. STEAVENSON, M.B. Cantab., M.R.C.S.,
Formerly House-Surgeon to St. Bartholomew's Hospital; and the Hospital for Sick Children, Great Ormond-street.

## NEW UTERINE DOUCHE.

WE have received from Messrs. Arnold and Sons a uterine douche, the principle of which was suggested by Dr. Ostlere. It consists of an external metal tube, having a small bulb at the end, perforated with fine holes; just below this bulb are six large openings: an internal tube which reaches to the bulb mentioned, and which fits the external tube, tightly only at the outer end. This inner bulb carries the injected current into the bulb, whence it escapes into the cavity of the uterus, and enters into the external tube by the holes below the bulb, thus finding a way of egress. This is one of the best forms of double tube for washing out the uterus; but it does not prevent the risk of fluid entering the Fallopian tubes, and it is open to the same objection as applies to all double tubes, that the cervix of the uterus and the vagina remain uncleansed.

# NEW SYDENHAM SOCIETY.

THE twenty-fifth annual meeting of this Society was held in Liverpool on August 3rd, 1883. Mr. Mason of Bath occupied the chair. The minutes of the previous meeting having been read and confirmed, the report and balance-sheet, as prepared by the Council, were read and ordered for publication as usual. The report stated that the production of the Lexicon of Medical Terms had been continued with as much speed as circumstances permitted, and two numbers had as usual been issued during the year. The issue for the current year will probably consist of a fasciculus of the Atlas of Pathology; selections from the works of Duchenne (of Boulogne), edited by Dr. Vivian Poore; two or more parts of the Lexicon of Medical Terms; the first volume of Hirsch's work on Historico-Geographical Pathology, translated by Dr. Creighton; a volume of selected monographs, of which Senator on Albuminuria and Landau on Movable Kidney will form part.

The following works had been issued during the past year:—98, Stokes on Diseases of the Chest; 99, Atlas of Portraits of Skin Diseases, Fasciculus XVI.; 100, The collected works of Dr. Warburton Begbie; 101, Lexicon of Medical Terms, Part VII.; 102, Charcot, Localisation of Cerebral Disease; 103, Lexicon, Part VIII. Amongst those which are in preparation are a fasciculus of the Atlas of Portraits of Skin Diseases; the collected works of Dr. Peacock, with memoir and portrait; one or more volumes of selected clinical lectures, from German sources.

The following officers were declared to be duly elected to their several posts:—President: Mr. William Bowman. Vice-Presidents: Dr. H. W. Acland, Dr. G. W. Balfour, Dr. Robert Barnes, Mr. E. R. Bickersteth, Dr. W. H. Broadbent, Dr. John Cleland, Sir W. W. Gull, Mr. Joseph Lister, Sir William MacCormac, Dr. Robert McDonnell, Sir James Paget, Sir G. H. Porter, Dr. Jas. Russell, Dr. William Rutherford, Dr. Hermann Weber, Sir T. Spencer Wells. Council: Drs. James Andrew, J. H. Aveling, Thomas Barlow, R. L. Bowles, J. Crichton Browne, Lauder Brunton, Thomas Buzzard, W. B. Cheadle, W. Cholmeley, W. Clement Daniel, J. Langdon H. Down, J. Matthews Duncan, John Easton, Balthazar Foster, C. J. Hare, G. E. Herman, Thos. Keith, G. H. Kidd, Stephen Mackenzie, William Roberts, G. H. Savage, J. W. F. Smith-Shand, E. R. Townsend; Messrs. Richard Barwell, T. F. Grimsdale, T. R. Jessop, S. W. North, W. R. Page, Septimus W. Sibley, C. Whipple. Treasurer: Dr. Sedgwick Saunders. Auditors: Drs. Clapton and S. Fenwick, and Mr. F. M. Corner. Hon. Secretary: Mr. Jonathan Hutchinson.

The usual votes of thanks to the retiring officers, to the hon. local secretaries, and to the chairman, brought the meeting to a close.

# ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FROM the financial statement of the receipts and expenditure of this College during the official year from Midsummer Day, 1882, to Midsummer Day, 1883, it appears that the income of the College from all sources amounted to £19,374 19*s.* 2*d.* The expenditure in the year (including an investment of £1007 10*s.* in Metropolitan Three-and-a Half per Cents.) was £19,446 8*s.* 5*d.* On the receipt side £16,249 2*s.* was received by examination fees for the diploma of Member and Fellow, and Licentiate in Dental Surgery; rent of chambers and freeholds in Lincoln's-inn-fields produced £1524 8*s.*; dividends on stocks, £1124 5*s.* 2*d.*; incidental receipts, £131 6*s.* 6*d.*; and receipts from trust funds, £345 17*s.* 6*d.* The expenditure was as follows:—Fees: Members of Council, £228 18*s.*; Board of Examiners in Anatomy and Physiology for Membership and Fellowship, £2604; Court of Examiners, £4001 11*s.*; Examiners in Medicine, £325 4*s.*; Examiners in Midwifery, £181 4*s.*; Examiners in Dental Surgery, £37 19*s.* 6*d.* Other expenses, including cost of burial of subjects, instruments, patients, &c., £384 12*s.* 8*d.*; diploma stamps, £430. College Department: Salaries and wages, £1787 10*s.*; stationery, printing, advertisements, postage stamps, &c., £953 12*s.* 8*d.*; coals and gas, £326 13*s.* 7*d.* Museum Department: Salaries and wages, £1704 0*s.* 5*d.*; lectures, catalogues, specimens, spirit, glasses, &c., £696 18*s.* 1*d.* Library Department: Salaries and wages, £358 8*s.*; purchases and binding of books, &c., £421 1*s.* 9*d.* Pensions: £279 12*s.* Extraordinary expenditure: Hunterian festival and oration, in addition to receipts from fund, £133 1*s.* 6*d.*; taxes, rates, and insurance, college buildings, £997 16*s.* 6*d.*; alterations, repairs, and painting, £2142 11*s.*; law expenses, £71 18*s.* 11*d*; investment, £1007 10*s.*; trust funds, £372 4*s.* 10*d.*

# THE LANCET.

*LONDON: SATURDAY, AUGUST 25, 1883.*

THE Government have most reluctantly had to abandon the attempt to pass the Medical Bill this session, owing to the fact that the enemies of reform have taken advantage of the forms of the House, which at this advanced period of the session are simply irresistible temptations to those who see themselves condemned and overpowered by public opinion. We are in no humour to be over-angry with those who have so acted. We regret that the whole profession and all the Medical Schools should be kept for some little time longer in a state of most unfair and injurious suspense and uncertainty. We regret also that the Government, after having taken infinite care and pains to ascertain the state of the case by appointing a Royal Commission of the first authority, before which every University and Corporation and all sections of reformers were fully heard, and by hearing over again for themselves the case of these various parties, represented in twenty or thirty deputations, should find itself baulked by a few interested individuals and Corporations in finishing the work which they had got so well in hand. The Government have a still further claim to sympathy because they had conceded almost too much to the obstructives on the understanding that their opposition would be withdrawn, only to find generosity abused and fresh conspiracies concocted to formulate fresh demands. It is easy to understand how such conspiracies arise. Adversity leads to strange combinations. It was painfully evident in the lobby of the House of Commons for some days that certain members of the profession representing Corporations of whom better things might have been expected, had been led to join Corporations which have done so much to injure the profession, so that we cannot be surprised at further expiring efforts in that direction. It is lamentable to have to add that in these tactics the Corporations in question seemed to be assisted by members of the House who like to be considered advocates of reform.

The largest share in the credit of baulking the Government and disappointing the just wishes of the profession must be given to the representatives of the Scotch Corporations, who could not conceal their joy when it became clear that their lease of privilege was to be extended for at least a few months longer. Those who have the misfortune to hold the professional qualifications of these Corporations have no reason to be so jubilant, or to thank those who, in this question, represent them. Those members of the profession who possess licences of the Scotch Corporations had a right to hope for a more dignified action on the part of these bodies. These Corporations suffer very grave discredit under existing circumstances. They are considered to have done more than any other bodies to convert their licensing functions into a kind of trade. The College of Physicians of Edinburgh in one year alone put £10,000 into its coffers by the free distribution of its licence. All the Scotch Corporations practically sell, or till lately did sell, their Fellowships. In the opinion of numerous witnesses of authority, from Sir JAMES PAGET downward, these Corporations have lowered their examinations, in spite of a high percentage of rejections, so as to admit largely to the profession men who found themselves excluded by other examining bodies. The Royal Commissioners so far adopted this opinion as to give it a conspicuous and permanent place in their report. What was the proper and dignified attitude towards a measure for medical reform on the part of those who represent bodies so seriously discredited, especially if conscious of the injustice of such charges? Surely it was to hail a measure which gave public guarantees of fair and equal work in each division of the kingdon, and which was generous enough to leave three Corporations among less than four millions of people, while it left only two to twenty-five millions in England. Those who hold Scotch diplomas have a right to have them placed beyond the reach of the disparagement which is heaped upon them and which is now enshrined in the report of the committee. The more so as this is not a Scotch question. The Corporations of Scotland could not exist merely by examining Scotch practitioners. They live by examining men from Ireland and men from England, and the least they can do is to recognise that they ought to satisfy the best Irish and English opinion that they do their work fairly. They have from the beginning shown the utmost objection to a Bill which leaves them far too much power, and which ought to have abolished at least one of them.

Though disappointed, we are in no way disheartened by the transient success of such tactics. We have seen before this that every temporary impediment to this great reform only improves the prospect of more complete success at last. The absurdity of the three Scotch Corporations, with all their sins, having a larger number of votes in the Medical Council than the four Scotch Universities, by its continuance only excites attention, and must ere long strike the mind even of Scotch members. The situation was never more clearly perceived than it is now in the light of the Report of the Royal Commissioners. The Government has displayed the utmost patience and earnestness on the subject, and the tenacity with which they clung to the Bill this session will, we venture to say, prove the measure of the determination with which they will resume it next session, at a time when such tactics as have been successful this week will be impracticable. Meantime they have earned the hearty gratitude of all who prize the dignity of the profession and wish to secure the exclusion of all who would impair it.

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ON Saturday last, at the late hour of eight o'clock in the evening, the vote for medical establishments and services for the Army was brought forward in the House of Commons. More than two months have elapsed since the Secretary of State for War promised Mr. GIBSON that this vote should be taken at a time when those interested in vindicating the conduct of the medical officers would have ample opportunity of doing so. We regret to think that Lord HARTINGTON did not redeem that promise, but allowed the question to stand over to a period of the session when a full and fair discussion was practically impossible. Sir H. FLETCHER, who was formerly an officer in the Guards, took the opportunity of attacking the present organisation of the medical department and lauding the old regimental system. In doing so, he insisted on the necessity for a military

commandant in the hospitals, as one of the results of our experience in Egypt, forgetting, no doubt, that at the time of the Crimean disasters the regimental system was in full operation, and every hospital under the control of a military officer. Let any one compare the results of the two systems as brought out practically in the Crimea and in Egypt, and say wherein the great benefit to the sick and wounded under the regimental system is to be found. Colonel ALEXANDER called attention to the injustice which had been done to the Army Hospital Corps, "which had never been placed on a proper footing, and was below its strength at the time of the outbreak of the war in Egypt." We have already pointed out the injurious consequences of this starving economy, which involved the necessity of sending the men to duty in the hospitals without any practical training. We trust Lord HARTINGTON will lose no time in remedying this evil, on which no difference of opinion is likely to arise. Lord HARTINGTON defended the present organisation from the charges brought against it. He stated "he could not ascertain that anything that had taken place in Egypt had furnished the slightest evidence against the system at present in force. ..... Going through the report, he observed the extremely small percentage of deaths among the cases taken into the hospital, and the absence of cases of hospital diseases, such as blood-poisoning, showed that, though there might have been some discomfort and inconvenience and some want of care, still the main object—the preservation of life—had been successfully carried out. Never had a campaign been carried on in which these results had been attained with greater success than in the campaign in Egypt." These expressions of satisfaction on the part of the War Minister with the manner in which the Medical Department did its work in Egypt cannot fail to be gratifying to the officers concerned, and we feel bound to say it is only in accordance with the opinion which Lord HARTINGTON has invariably given on the subject. It is to be regretted, however, that he did not make an earlier opportunity for the discussion of the question, considering the very unfair way in which it was first brought before the public through a breach of confidence. On the present occasion, owing probably to the lateness of the hour, the advanced period of the season, the necessity for economising the time of the House, and the absence of members from town, none of those who had previously taken up the subject in defence of the medical officers, and who had intimated their intention of refuting the charges brought against the service, entered an appearance. Lord HARTINGTON thought the discussion had better be postponed until the action the Government proposed to take is brought forward in the early part of next year. Probably, under existing circumstances, this was the most advisable course, but it is certainly very hard that the officers of an important branch of the service should be left under the stigma of unfounded charges for so long a period without being afforded a chance of vindicating themselves.

On Monday, in answer, we presume, to some remarks by Sir GEORGE BALFOUR, which have not been reported, the Marquis of HARTINGTON said he believed that Lord WOLSELEY had prepared a Memorandum setting forth the points at issue between him and some of the medical officers. If this document is to be made public, we trust that the Secretary of State will take care that it is first communicated to the officers concerned, and that any remarks they may desire to make will be included in the publication. They have already suffered enough from *ex parte* statements, and have a right to be heard in their own defence. It is well known that no officer is entitled to publish anything regarding himself or his work without permission from the military authorities; it is, therefore, incumbent upon Lord HARTINGTON to afford them an opportunity of refuting or explaining any charge brought against them, and the more so when the statements emanate from so high an official as the Adjutant-General. It is not too much to expect that if this permission be granted to Lord WOLSELEY, it will not be withheld from those medical officers who have been made the victims of misplaced and unjust popular indignation.

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THE first subject chosen for discussion in the Surgery Section of the British Medical Association at Liverpool was that of Intestinal Obstruction and its surgical treatment. No more appropriate subject could have been selected, and it is to be regretted that more time was not given to it, and that the matter was not entered upon with more detail and completeness. Letters that have recently appeared in our columns show that the problems it presents are both many and interesting. It is important to be clear in the use of all our technical terms, and we therefore must support the view, by no means novel, urged by Mr. PEARCE GOULD at Liverpool, that intestinal obstruction is but a symptom, an effect of many different causes, and that it is not a disease in itself. It is never enough to know that a patient has intestinal obstruction—the unlearned can tell so much; but search must be made for its cause. The term intestinal obstruction should be used to mean only obstruction to the passage onwards of the intestinal contents, whether that be due to blocking in front as by impacted gall-stone, twist in the tube by volvulus or traction, compression of the gut as by tumours or bands outside it, growths in the gut itself, or simply by paralysis of the muscle of the intestine, itself the result of active or old inflammation, of great congestion, or of over-distension.

Cases of intestinal obstruction pure and simple are not common, and their course cannot be often studied, for in those most nearly simple there is only too frequently the complication of some malignant growth in the wall of the gut, with secondary deposits elsewhere. But it is known that the course of these simple cases is chronic, that the onset of symptoms of general disturbance depends upon the seat of the obstruction, and that with the removal of this these symptoms entirely pass away. But in the more acute cases of so-called intestinal obstruction the picture of the disease is entirely altered. Symptoms of great urgency present themselves early—even suddenly; the effect upon the general condition is very marked, and may even be fatal; and serious pathological conditions are produced, which may not be remedied by the simple removal of the primary cause of the mischief. These are truly cases of obstruction, but obstruction *plus* something else, and it is just that something else which leads to the different symptoms and results. This additional something may be a tumour, simple or malignant, or inflammation of one or more of the coats of the intestine, or interference with the circu-

lation of the blood through the intestine, or compression of the nerves of the part leading to reflex irritations—one or more of these. Hence it should always be borne in mind that, when speaking of a case as one of intestinal obstruction, we are using a term which may signify the sole malady, or which may refer to one of the less important symptoms of the case. Indeed, an exact parallel is found in the condition known as retention of urine. Cases the most diverse, and needing very different treatment, but possessing one symptom in common, are for a certain convenience grouped together. But no surgeon for a moment thinks he has done much towards diagnosing a disease when he designates it as a case of retention of urine. It is just as necessary that the term "intestinal obstruction" should be recognised as a convenient name for a large group of cases having this one symptom in common, but as in no case being a sufficient designation, a diagnosis, or a basis for treatment.

There is only one satisfactory and truly scientific way of dealing with the cases thus grouped. They must be separated according to their cause; and then this cause must be treated—removed where possible, and where that is impossible its chief ill effects combated. This has long been recognised in regard to two or three forms of intestinal obstruction—such, for instance, as external hernia and stricture of the rectum. But there is no scientific justification for the exception made in these cases, though of course from a practical view there is, for the diagnosis of these conditions is easily made, and the appropriate treatment somewhat obvious. Before we can begin to speak of putting the treatment of intestinal obstruction upon a scientific and satisfactory footing, the process of separation must be carried throughout the whole series of cases; and to assert that the diagnosis of the different forms of internal obstruction is impossible and unnecessary is to show a singular want of scientific appreciation. What we need is to be able to separate at least four groups of cases: (1) Cases due to growths in or around the intestinal wall and stricture; (2) those due to paralysis of the intestine; (3) those due to simple obstruction by blocking of the canal; (4) cases of strangulation of the vessels and nerves of the part. To a large extent this is practicable now, and it is a slight upon our zeal and acumen to suppose that conditions so different will be for ever undistinguishable to us. This being so, it is eminently unscientific to laud any one mode of treatment as a specific for intestinal obstruction, or as the right one to be adopted in all cases. In the recent discussion, some spoke in favour of operation, others against it; some in favour of certain efforts at arriving at a diagnosis, others against them. All were right, and all were wrong. It would be as rational to perform suprapubic puncture of the bladder in every case of retention of urine, as to open the abdomen and make an artificial anus at the presenting coil of intestine in every case of intestinal obstruction. No doubt a certain number of cases would be relieved by each procedure, but many of them would be grossly maltreated. In dealing with cases so different in their essence as are those of intestinal obstruction, the mere citing of plans of treatment which have proved successful in certain cases is of very little value, unless we know how the treatment succeeded, and therefore can tell when it should be employed. To vaunt any one procedure as alike applicable to all cases is the method of quacks, and not of surgeons; and we hope the time will soon arrive when surgeons will cease to discuss the treatment of intestinal obstruction as a pathological entity, and speak rather of the treatment of the different conditions of which it may be a common symptom.

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MR. ANDERSON'S question in the House of Commons, as to whether there was any rule under which a householder or other person could apply to the local sanitary authority and obtain, for a reasonable fee, an inspection of a house and a certificate as to its drainage and general sanitary arrangements, affords an instance of the increasing interest which is being taken in a matter that seriously affects many existing householders and persons who are desirous of becoming such. It is notorious that the houses both of the poor and of the rich are in many instances in need of radical structural alteration in order to constitute them wholesome dwellings, and it is well known that many persons, after entering a newly acquired house, have been stricken with disease and death because the sanitary arrangements of the dwelling have been such as to ensure the contamination of air or water, or both, with sewage emanations. And not only so, but the ordinary public are necessarily quite unable to judge as to the quality of the sanitary arrangements, most of which are buried beneath the foundations or hidden away in obscure corners and places difficult of access. There is hence a very natural demand for some official assistance in the matter, and the demand is very properly addressed to the central authority which controls the sanitary administration of the country. But when we read between the lines of the answer given by the Parliamentary Secretary to the Local Government Board, it is not difficult to discern that the subject is by no means an easy one to deal with. The Local Government Board could not easily initiate any action in the matter except through the agency of the sanitary authorities and their officers; but it will hardly be pretended that all medical officers of health are competent to give an opinion on such a point. Skill in testing the efficiency of a drain and of its connexions with the internal fittings of a house on the one hand, and with the sewer on the other, is only acquired as the result of such experience and tuition as could hardly be procured until within recent years, and the dangers or the reverse attaching to the different forms of water-fittings are perhaps even more difficult to master, except as the result of constant practice. Then, as to the inspectors of nuisances, it is well known that a very large proportion of these officers are merely head scavengers or working road surveyors; who are, not only when first appointed, but even after many years of service, utterly incompetent to examine a house, and give a trustworthy certificate as to its sanitary state. There are no doubt many exceptions to this rule, and those sanitary officers who have made themselves acquainted with the principles of house sanitation may well feel aggrieved that their opinion is in the eyes of the law on a level with that of their incompetent brethren. But with such materials to deal with, the value of certificates granted as Mr. ANDERSON proposed, would have no constancy whatever, and owners of property who wanted to secure a tenant would soon find out that the procuring of a certificate as to

wholesomeness was in many localities little better than a form. Mr. RUSSELL evidently had regard to this when he referred to the fact that authorities might find themselves hampered by the practice of giving certificates, or of allowing their officers to grant them. A certificate once given by an incompetent official would necessarily tend to relieve the owner of the responsibility for any occurrence of nuisance or of disease on his premises, and it might very seriously hinder efforts to secure the removal of a sanitary defect arising after the date at which the certificate was given. Mr. RUSSELL laid it down that the principal duty of sanitary officers in this matter was to discover sanitary defects, not to give written certificates as to their absence; but at the same time he stated that the Local Government Board would by no means object to any sanitary authority undertaking the latter duty by way of experiment.

Some official intervention is clearly wanted in the interests of the public, but before it can be effectual the country must require that those persons who are to become the sanitary referees shall have real and practical knowledge of the duties to be required of them. Until then, those who can afford to pay a fee must rely on the private Associations which have been so well organised to meet this want; and those who are unable to pay will deserve, and doubtless receive, much consideration at the hands of those officials who know the difficult position in which such householders are placed in this matter. The action of medical officers of health in different parts of the country has already resulted in effecting great improvements as regards dwelling accommodation, and it is to be hoped that, as the result of Mr. ANDERSON'S question, still further facilities will be afforded to the public in this direction, although possibly not precisely in the manner he has advocated.

# Annotations.

"Ne quid nimis."

## INDIAN MEDICAL SERVICE.

AT a time when so much stir is being made about the large number of officers in the Indian Medical Service on "unemployed pay," it is very unsatisfactory to find that one of their administrative officers—the Surgeon-General of the North-West Provinces and Oudh—has conferred a medical appointment upon a missionary who possesses a degree, presumably, from an American university. The appointment in question is that of Superintendent of the Pilgrim Hospitals in Garhwal, and carries with it the pay of 100 rupees per mensem. We cannot believe that Lord Northbrook would sanction such a misappropriation of a medical appointment, especially at a time when the junior officers of the department are complaining of being unjustly treated in being kept so long on "unemployed pay," and we trust that it will be brought under his consideration. But not only is the appointment in question objectionable on that account; it is positively illegal. The Medical Act of 1858 provides "that no person shall hold any appointment as a physician, surgeon, or other medical officer, either in the military or naval service.....unless he be registered under this Act," and "that no certificate required by any Act now in force, or that may hereafter be passed, from any physician, surgeon, licentiate in medicine or surgery, or other medical practitioner, shall be valid, unless the person signing the same be registered under this Act." The name of the gentleman who has been thus nominated Superintendent of the Pilgrim Hospitals is not entered on the Medical Register; he is not therefore legally qualified to hold that appointment, and any certificate he may be called upon to furnish with respect to the hospital must be invalid. This is a matter which seems to demand the attention of the Indian Council, and which ought therefore to be brought to their notice by Sir Joseph Fayrer, their adviser on all medical matters. We are informed that the Surgeon-General of the N.W. Provinces and Oudh is, like his nominee, the Rev. R. Gray, M.D., distinguished by the absence of his name from the Medical Register.

## PROFESSOR STOKES ON THE MEDICAL BILL.

MR. STOKES, commenting in a letter to *The Times* on Mr. Gladstone's answer in reference to the Irish medical honours in a mood of just dissatisfaction, is rather hard on the Medical Bill:—

"In awarding honours to the medical profession, Mr. Gladstone informs us he has paid no attention whatever to any geographical consideration. The medical profession he looks on as 'one,' and this oneness, he states, he alone considered in giving the distinctions above alluded to; also, that this principle is, in fact, similar to what is embodied in the Medical Acts Amendment Bill the Government are so anxious to have passed this session. But if this unity of standard and authority is embodied in the Bill, it has been kept sacredly behind the scenes, to be produced, perhaps, at an unexpected moment like the transformation scene of a pantomime. In order to gain the adhesion of the existing medical authorities, we are given a Bill in which, instead of the principles of unity being advocated, most elaborate plans are laid down for the formation of separate Boards, separate curricula, and separate examiners for each division of the kingdom, and, with a *naïveté* which is as amusing as it is surprising in a person possessing so much argumentative adroitness as Mr. Gladstone, he lets the centralisation 'cat out of the bag' in his admission that the medical profession is to be 'one in authority.' It is not difficult to foretell where the future *habitat* of the 'one authority' will be, and a little later on, where the one examination will be held, when the existing medical and surgical corporations, refusing to see the dangers that surround them, and, ostrich-like, keeping their heads in the sand, blind and deaf to the friendly warnings of those who recognise what good they have done in the past and what good they are capable of in the future, if permitted to continue to exist, are disestablished and disendowed. In a very few years after the Bill becomes law, they will, undoubtedly, be so reduced by inanition that a 'happy despatch' will be welcomed as a positive relief."

This we say is rather hard and scarcely the criticism that we should have heard from the illustrious father of Professor Stokes. Does Mr. Stokes really want one Board instead of three? And does he really believe that there is any power in the Bill of creating "one authority" that is to lead to the disappearance of "all the existing medical and surgical corporations?" The Government would have acted more logically in creating one examining and licensing authority, but they preferred to regard the national and the natural susceptibilities of Ireland, Scotland, and England, in creating Boards, in which all that is best in their universities and corporations will survive in increased honour and strength. And for doing this they get scant justice at the hands of critics like Mr. Stokes, who seem to think the existing corporations the perfection of professional organisation, beyond the reach of adaptation or the possibility of improvement. This is the view of some officials of corporations. It is not the view of the profession at large. We regret that so distinguished a professional leader as Professor Stokes should have no more to say in favour of a measure which

goes further in the way of securing equality of curricula and examinations and international fair play than any previous one.

## OPENING OF THE NEW NORFOLK AND NORWICH HOSPITAL.

THEIR Royal Highnesses the Duke and Duchess of Connaught have this week visited Norwich, to be present at the inauguration of the recently completed Norfolk and Norwich Hospital. The original hospital, which was in the form of a letter H, was built in 1771 and accommodated 120 patients, and after a century of usefulness a serious outbreak of hospital disease necessitated a careful examination of its arrangements with a view to prevent the recurrence of so grave an evil. Alterations of various kinds were proposed and some were carried out, but after much discussion it was decided to build an entirely new hospital. This project was supported by his Royal Highness the Prince of Wales, who laid the foundation stone of the hospital in June, 1879. The west pavilion, and administrative and operation block, were taken in hand first and opened by the Mayor of Norwich in 1881. Since then the east pavilion has been erected, and the east wing of the old hospital converted into an out-patient department and nurses' dormitories. The hospital consists of a central administrative block, behind which is the operation block, consisting of a spacious well-lighted theatre, surrounded by six small wards for one or two patients each. On each side of the central block is a long corridor ten feet wide, with thorough cross ventilation, leading to a pavilion 260 feet long and 29 feet wide. Each pavilion has two storeys, with a central attic storey above, and contains two wards for twenty-four beds each on each floor. Projecting from the corners of the pavilion are octagonal turrets, approached from the wards through well-ventilated lobbies, and in these turrets are the waterclosets, bath-rooms, &c. Two wards, containing in all seventeen beds, have been reserved for children. The museum and the out-patient and infectious wards are amply provided for in one block of the old hospital, which has been reserved for that purpose. The most approved means of warming, lighting, and ventilation have been employed throughout, and steps have been taken to render the buildings as free from the danger of fire as possible. The total cost of the building at present has been £51,879, towards which £39,118 has been subscribed, and £10,000 has been withdrawn from the invested capital of the hospital on the promise of an anonymous governor, conveyed through Mr. Cadge, of the reversion of a like sum at the death of himself and his wife. About £5000 more is required to pay off the balance due to the bank and to defray the cost of furnishing the new building. By means of a grand bazaar and a concert it is hoped to raise a considerable part of this sum during the present week. The president of the hospital, the Earl of Leicester, has added the large sum of £15,000 to the permanent endowment of the hospital, and has thus shown a wise foresight as admirable as his princely generosity.

## WINDOW VENTILATION.

NO time could be better than the present for beginning the practice of house ventilation by the window, which is still, in the majority of houses, the readiest and the safest means of obtaining a regular and constant supply of fresh air. This practice, begun in warm weather, may be carried on with proper care through autumn and winter. The constantly accumulating impurities derived from breath, from perspiration, from excreta of other kinds collected in sleeping-rooms, from the use of gas or lamp light, and too often, even now, from suction of sewage-gas from waste-pipes by the heat of house fires, &c., render it as necessary for health as for comfort that these should have free egress, and that they should be substituted by the pure outer air. Fresh air from without may very easily be had without draught, and without risk of cold even to delicate persons, if a few simple rules be observed. The cold air of winter of course enters with greater force, and in greater proportional volume than the more equable summer air, into a warm room. The aperture of ingress must be correspondingly diminished. Air from a window is preferable to that from an opened inner door, no matter how roomy the house, from its more reliable purity. If the window be the inlet, the fire, fireplace, or it may be the door of a room in summer acting as an outlet, it may be opened from the top, the extent being regulated according to the outer temperature. There is then a direct inward current at the upper part, which follows the roof of the room, thus mingling with any heated waste products which require to be removed, and an interrupted current at the middle, the previous line of junction of the upper and lower sashes; both are broken and diffused by the blinds or curtains. Venetians for this purpose should be turned upwards. A window should never be made to ventilate by opening it from below, unless the open lower space be filled up in some way, and ventilation be carried on at the middle, where the sashes join; otherwise draughts are unavoidable. The ventilating-pane is a hardly less simple and equally efficient and safe method with either of the others. Window ventilation is especially useful in bedrooms, and its efficiency or otherwise cannot fail to affect the vital powers of the occupant, who in his slumbers must trust to other energies than his own for the removal of those impurities and morbific germs which his every breath multiplies around him.

## ALLEGED INCREASE OF INSANITY IN THE UNITED STATES.

WE must confess our inability to understand how it comes to pass that the professors of statistical science, in reference particularly to what are known as "vital statistics," do not yet perceive the fallacy of "increments" of integral classes of the population, calculated on the bases of successive censuses. Even if there be a given number for the whole population at one period of census-taking, and another number—say ten per cent. greater—when the next census is taken, it does not necessarily follow that the population has increased ten per cent. in the interval, as compared with the increase in any previous interval of like duration. It may very well happen that some devastating war or epidemic may have prevented the survival of a certain percentage of those who were alive at the commencement of the earlier interval until the close of it, so that the difference between the numbers polled at the beginning and at the end of the earlier interval may not have been so great as it would otherwise have been, and not so great comparatively as the difference between the census taken at the commencement and the census taken at the conclusion of the latter interval. It seems to be forgotten that mere difference between returns at successive periods throws no statistical light whatever on what has happened in the interval. Comparisons of birth-rate and death-rate are needed to interpret the import of successive census returns, and without such comparisons these returns are not simply worthless, but may be actually misleading. Now, when we come to compare the returns made to the Commissioners in Lunacy at the commencement of each year, we are comparing successive censuses, and no sort of conclusion can be drawn without taking steps to ascertain how any increase which may have occurred is to be explained. Has the number of admissions been greater during this year than formerly? If so, to what extent has this been due to the fact that, more accommodation having been provided, it has

been occupied? Again, has there been any proportional decrease in the death-rate? because, if so, obviously a number of individuals who, according to precedent, would have disappeared from the roll during the year have not disappeared, and now help to swell the total? Further, have any changes in policy or administration, such as a broader interpretation of the meaning of "insanity," naturally leading to the extension of the class thus designated, or greater vigilance on the part of those charged with the duty of searching out and classifying the "insane," occurred? Clearly, these and other factors of the result must be examined and estimated before any trust can be placed in the returns made. Meanwhile these returns are mischief-making; they keep up a vicious circle of activity, producing an increase of asylum accommodation which we believe to be perfectly unnecessary, and which must inevitably lead to an apparent increase in the number of the "insane." When, therefore, we hear of a "startling increase" of insanity in the United States, we simply decline to believe in it. General indications of the state of mental health in America do *not* bear out the inference to which statistics point; and, as "vital statistics" are at present computed in this country and in America, we are convinced that general indications are more trustworthy than figures which may not be facts.

## ATHENIAN MEDICAL CONGRESS.

THE first Congress of Greek Physicians, which is to assemble triennially, was inaugurated in April, 1882, at Athens. We have just received a copy of the Transactions of this meeting. Many papers of interest were read. An account of the principal mineral waters of the Ionian Peninsula, illustrated with a coloured geographical chart, was supplied by Dr. Lattris of Smyrna. The principal diseases met with in Egypt formed the subject of a paper by Dr. Pissas of Cairo. Professor Caramitzas of Athens contributed a paper on the intermittent fevers of the capital of Greece. An alleged syphilitic cachexia, the symptoms of which are not described, is endemic in some parts of Greece. The nature of this affection, which is said to have a congener in Norway, called radesyge, and in Scotland termed sivvens, was discussed by Albanakis of Calamas. At the fourth day's séance Dr. Xanthos of Hydra spoke on tsanaki, an infantile malady occurring in the Island of Hydra. This affection, called douleur at Spezzia, attacks children of both sexes up to the age of four years, but never later, and is characterised by hectic fever, swelling of the liver and spleen, gastro-intestinal disturbance, progressive cachexia with hæmophilia, œdema of the extremities, and general exhaustion. Bad drinking-water, hereditary syphilis, and malaria have been assigned as causes of the disease, which runs a chronic course, and may last two years.

## THE LORDS AND PIGEON SHOOTING.

THE rejection of the Bill which was intended to put an end to the ignoble practice of shooting trapped pigeons under the guise of sport, but really for "betting" purposes, is not one of those works of the hereditary legislature which will incite sensible people to "thank God we have a House of Peers." We can conceive of many graver acts of opposition to the will of the Commons House of Parliament which would do less to shake the stability of the "Upper" House than this weak and unwise procedure. It is perfectly true, as a contemporary has pointed out, that with hardly an exception the majority which rejected the measure was composed of obscure members of the House of Peers, who have the power to do this wrong simply because they happen to have been born to rule. The true wit and wisdom of the hereditary branch of the Legislature was on the side of the pigeons. As the Duke of Argyll justly observed, "pigeon-shooting is wanting in all those higher elements which make other sports natural to mankind and delightful to the most civilised man." Pigeon slaughtering is precisely the sort of pastime which would commend itself to the instincts of the feeble-minded and unmanly clique of persons who formed the majority of the Upper House. As a matter of absolute fact, the only consideration which preserves the sanction of the law for pigeon-shooting is the excuse it offers for petty gambling. Anything more disgraceful than the betting which goes on at the so-called "clubs" which assemble for the purpose of slaughtering trapped pigeons it would be difficult to imagine. For the session this measure is lost. Next year it will be revived; and then doubtless, with the accustomed cowardice of their House when actively pressed, the peers will pass the Bill. Meanwhile by its rejection they have driven another nail into their own coffin.

## THE GUARDS' HOSPITALS.

WE have been considerably amused at a grievance which Sir H. Fletcher brought forward in the House on Saturday night, when discussing the vote for army medical establishments and services. He stated that "up to a short time ago the Household troops had their own hospitals. Owing to arrangements made by the War Office the three hospitals had been taken away. The hospitals had been kept up by private funds collected and managed by the officers." This, if correct, would certainly show a most remarkable benevolence on the part of the officers of the Guards and a deep interest in their men. But we believe it may bear a different aspect. If we are correctly informed, these "private funds" were derived from two sources—the hospital stoppages of the men under treatment, and what was known as the "stock purse." An allowance was made by the Government of a certain sum per company to defray the expenses of recruiting and of the hospital, and this allowance was so liberal that at one time each captain of a company drew from it a sum of nearly £90 a year in addition to his pay, so that, instead of being out of pocket by their liberality in keeping up the recruiting and the hospital, they actually received a considerable sum of money from it. It would be interesting to know what arrangement the War Office made with the officers on taking over the three hospitals, as we feel well assured it did not confiscate their property. When the discussion next arises respecting the Army Medical Services perhaps some officer who understands the system may obtain, either in discussion or in the form of a return, such information respecting the pecuniary arrangements as may satisfy the public that the sick of the Guards have not hitherto been a burden upon the private means of their officers.

## SEA-BATHING RISKS.

WE have repeatedly called attention to the risks which beset bathing on the sea shore, whether with or without machines. It is urgently necessary that this most healthful exercise should be placed on a safe footing. Diving in shallow water and venturing out of fair depth of water are acts of foolhardiness against which it is difficult to protect the public. There should, however, be some official on every beach to supply information and take measures for the safety of those who venture into the sea, and this person ought to be endowed with power to compel necessary precautions. In nearly every instance of loss of life which at this season agonises the public mind, there is cause to regret the neglect of some obvious measure of carefulness. This is a matter for the interference of local authorities. Those who are really anxious for the prosperity of their particular places of resort should not fail to regard this phase of enterprise as important.

## DR. LYONS ON THE UTILISATION OF PARLIAMENTARY ENERGY.

DR. LYONS writes us a letter similar to that which has appeared in *The Times*, in which he makes suggestions for the utilisation of parliamentary energy. His principal proposals are that the House of Commons should be summoned at earlier hours, when members specially interested in subjects—Army, Navy, English, Irish, and Scottish—would attend and advance work. The danger of such a system would be that the tendency already shown to localism and parochialism in legislation would be increased, and that instead of a broad view of a subject we should get a narrow one. Take, for example, the subject of medical legislation. How difficult it is to get it viewed from a general and public point. How every little corporation fights for its own hand, as if it were the medical profession and the public and the Legislature in one, so that the Government has to haggle with it from its simple power of obstruction and resistance being greater than the power of public interest. Such a state of matters lowers legislation in public estimation. If Dr. Lyons can show how, by leaving legislation very much to "those specially interested," he is going to preserve its breadth and purity and elevation, he will do much to advance the acceptance of his proposals. Dr. Lyons's next proposal has reference to the House of Lords. "If the Lords consent to have their undoubted knowledge and ability supplemented in one or two departments," Dr. Lyons believes "that august body would be capable of discharging a very large additional amount of most valuable work." This suggestion is very good, but it does not go far enough. It is not in one or two departments only that the House of Lords wants to be supplemented, but in ten or twelve. Life peerages conferred freely on men of broad merit in every department of life, capable of enlightening and leading opinion on public questions—social, scientific, or political—would tend really to increase the influence and usefulness of the House of Lords, and to raise the waning respect of the public for legislation. Dr. Lyons closes with the suggestion of an amendment in the Medical Bill to give Her Majesty in Council power to nominate the President of the Medical Council for ten years, and to call him as a life peer to the House of Lords. We prefer keeping the power of choosing its own chairman for the Council, though when the reconstruction of the Second Chamber comes to be seriously considered, we shall have no objection to seeing the President of the Medical Council summoned to its deliberations. The want of such a link between the profession and Parliament has long been felt.

## FOOD IN OBSTETRIC AND GYNÆCOLOGICAL PRACTICE.

IN fairness to Dr. Graily Hewitt we last week published a letter in which he takes exception to some editorial remarks which appeared in our impression of August 11th. Amongst other statements in our leading article we said "the whole body may suffer as a consequence of such deficiency of diet, but why should the generative organs be specially selected as the seat of disease?" Now, Dr. Hewitt's letter affords no answer to that criticism put in the form of a question. We did not deny the generalisation, for we are well aware that Dr. Hewitt had made it, having carefully read the proof of his address. But we maintain that the impression one gets from a study of the address is, as we remarked, that "the tissues of the uterus and ovaries would appear to suffer more than those of any other organ of the body." Instead of taking so much note of the uterine and ovarian states in women, it would be more scientific to tabulate the deviations of all the organs and tissues. Were such a list forthcoming, the mind would then be able to compare each item with any other. It might then appear that the blood, or the neural system, or the stomach, or some other organ, had suffered quite as much as, if not more than, the uterus and the ovaries.

## FIRES AT ASYLUMS FOR THE INSANE.

WE have no desire to "improve" the mournful calamity which has recently occurred at Southall against the proprietors of private, and the administrators of public, asylums generally. Time should be given to see whether responsible persons and boards will not take the initiative, as we have reason to believe some are actually doing, in bringing about a better state of matters. Meanwhile the drowsy must be aroused. For the present it will suffice to invite the specialty to take instant action in the matter. We shall be glad to hear from proprietors and committees of asylums what they propose to do. That something must be done is obvious. A very large proportion of the institutions in which the insane are collected throughout the country are practically without protection. Even where a few hydrants exist there are no provisions for the escape or removal of the inmates. The saving of property has in some instances been thought of, but the saving of life has not attracted sufficient attention. There is something grimly grotesque in the notion of an inquiry to be instituted by the Commissioners in Lunacy! Why, this very body is responsible for licensing the house which has just been burnt down—a house so constructed as to render it a particularly easy prey to fire! Not a particle of authority can possibly attach to any inquiry conducted by the Commissioners. Such an inquiry will be on a par with the investigation which the board of directors of a joint stock company would be likely to make if invited or permitted to perpetrate the solemn farce of inquiring how they had contrived to cheat the public and beggar their shareholders. Patients are placed in private asylums on the faith that the Commissioners in Lunacy have seen that the houses they license are safe. This duty has been grossly neglected in a particular instance, and now, forsooth, the Commissioners are to inquire into the circumstances attending a terrible and fatal catastrophe, the consequence of their policy of neglect. A truce to such fooling!

## CHOLERA PROSPECTS IN ENGLAND.

EVERY week that now passes without the importation of cholera into England may be regarded as materially diminishing the chance of our being visited by that disease this year. By the end of this month our immunity will be still further secured, and if by the middle of September we are still free from the infection we may feel fairly assured that the period of danger has passed by. The mere existence of the disease at Alexandria should, however, make our sanitary authorities doubly cautious, and everything should be done between the present time and next autumn to remove all conditions capable of facilitating a development of the poison in case cholera, in accordance with former precedents, reappears in Egypt next year and spreads to Europe.

## ATTENUATION OF CHANCROUS VIRUS.

WE have already drawn attention to the hypothesis that the principle of attenuation may play an important part in the explanation of some of the remarkable changes which diseases undergo, either under the influence of intentionally administered agents, or from the action of quasi-accidental circumstances originating within or without the organism. The notion of destroying or annihilating a disease can only be entertained side by side with the belief that the chief factor of a disease is some tangible entity. Absolute extermination can only be aimed at whilst the micro-parasites exist in the environment. When once the organism is attacked we

must trust to attenuation. Chemically the distinction between destruction and attenuation, however great, may be regarded as one of degree. In destruction we may say there is a passage from the organic to the inorganic; whilst in attenuation the transition may be to a body which is equally vital, organic, and complex with the original poison, but possessing different physiological properties. One of the latest practical phases which this new development of the principle of attenuation has received comes from the observations and recommendations of M. Aubert. The author concludes from his experimental and clinical researches that in the agency, heat, we possess an excellent means of attenuating the chancrous virus, and consequently of treating the simple chancre. He finds that a temperature a little above the normal body heat, of 37° to 38° C., destroys the virulence of the poison. It is necessary to combine elevation of the internal body-heat with that of local warmth, and practically to imitate what goes on in the organism affected with erysipelas when there is general fever and local heat. M. Aubert advises the employment of the hip-bath, made with water at a temperature of 40° to 42° C., and continued for several hours. Chancrous ulcers may thus have their virulence destroyed. This mode of treatment is considered to be the best for phagedænic ulceration, and for those subphimotic sores which ordinary dressings cannot touch. Similar treatment directed to specific buboes is said to convert them into simple abscesses. The value of the warm bath, hot fomentations, and the, at times, much derided poultice in the treatment of angry and virulent forms of inflammation has been long admitted. It is possible that a more scientific explanation than has hitherto been forthcoming of the *rationale* of these familiar remedies is afforded by the present notions of attenuation.

## COMMON LODGING-HOUSES IN LONDON AND PARIS.

IT is a lamentable fact that our neighbours, instead of coping with the danger of cholera by adopting, at least, elementary sanitary precautions, have spent their best energies in denouncing the policy of England in respect to maritime quarantines. As an example in point we may take the housing of the poorest sections of the population. In London these live in what are known as registered common lodging-houses, and in spite of the poverty and irregular habits of this class, the mortality among them is a little less than the average mortality of the entire metropolis. This result must be attributed to the constant inspection of these lodging-houses by the sanitary police, and the excellent regulations with regard to drainage, ventilation, &c. In Paris the reverse is noted. Disease is always most prevalent in buildings that correspond to our common lodging-houses, for there is no sanitary police to keep them in order. In London, strict rules are laid down, and very generally carried out, to prevent overcrowding, but in Paris overcrowding is daily on the increase. Thus, our sanitary commissioner, when reporting on the causes of the recent typhoid epidemic in Paris (*vide* THE LANCET of January 6th, 1883, p. 31), noticed that the number of poor lodging-houses was 9050 in 1876, with 142,671 tenants, and that these figures had risen in 1882 to 11,535 and 243,564 respectively. This showed that the number of lodgers augmented far more rapidly than the number of lodging-houses, the overcrowding being thus aggravated. We also gave statistics of the quarters where the rate of mortality from typhoid was the highest, and this corresponded with the district where the greatest number of lodging-houses, and the most overcrowding, had been recorded. Apparently nothing has been done to check this evil. A plentiful supply of statistics have been prepared by the authorities on this subject, and the police keep the keenest watch on each individual lodger; but nothing is done towards supplying traps to the drain-pipes, ventilating the rooms, or for the removal of the closets from the vicinity of the bedrooms and other unsuitable positions. Fever is constantly present in such houses, but effective disinfection and isolation are never practised. The size of the houses, many of them having as many as six storeys and 200 inhabitants, aggravates all these sanitary defects. Fortunately the French poor spend the greater portion of their time out of doors, and are also more tidy and clean in their rooms and in their dress than the same classes in London. It is rare to see in Paris the filthy bedding on which our lower classes are content to sleep. The greater sobriety and thrift of the French poor help to counteract the unwholesome condition of their dwellings; but it is high time the French Legislature should protect them from infection by some enactment which would carry out, on a larger scale, provisions similar to those of our Common Lodging-houses Act of 1851.

## PRECAUTIONS AGAINST CHOLERA IN NEWCASTLE.

IN compliance with the instructions of the sanitary authority, Mr. H. E. Armstrong, the medical officer of health to the city of Newcastle-upon-Tyne and the River Tyne Port, has issued a report on the precautions against infection of cholera which are adopted in his district. In addition to the ordinary work of the Health Department, a house-to-house inspection was begun in January last, and is still in progress. Accompanying the report is a copy of the form which has to be filled in by the inspectors, from which it appears that the inquiry is searching and thorough, and likely to materially raise the sanitary standard of the city if the defects recorded in the reports are promptly and energetically remedied. A watch is kept night and day for the arrival of vessels from countries infected with cholera, and all such vessels are boarded immediately on entering the Tyne, and masters of vessels are directed to give immediate information to the medical officer of health of any case of sickness likely to be of an infectious nature. If, notwithstanding these precautions, a case of cholera should be introduced into the city, the medical attendant is required to immediately notify the medical officer of health thereof, who is prepared to move the patient at once to hospital.

## THE SANITARY SOCIETY OF SPAIN.

THE Sanitary Society of Spain, founded a few years ago under high patronage, has so far gathered strength that it is now able to issue a monthly review for the purpose of spreading the doctrines of hygiene throughout the country. We have received the first four numbers of the *Revista de la Sociedad Española de Hygiene*, which contain reports of the debates and meetings of the society, meteorological reports, a number of articles on sanitary subjects; and, among other things, a list of books to be consulted, and which are at the disposal of members of the society. We regret to see that there are no English works in this list, a defect that should be remedied as soon as possible. On the other hand, Senor Mariano Belmas, who was specially appointed by the king, Don Alfonso, to visit England and report upon workmen's dwellings, &c., contributes to the *Revista* a very useful description of the principles of house drainage generally adopted in this country. Such information cannot but be of the greatest use in Spain, where the war against sewer gas has not yet begun. Such indeed is the sanitary condition of Spain that it has been possible to introduce not merely the ordinary zymotic complaints of Europe, but such exotic diseases as yellow fever. Under these circumstances an agitation in favour of sanitary reform is particularly urgent; and

we warmly congratulate the doctors, architects, and others who have taken the initiative in the movement. The high death-rate of the large towns of Spain, varying from thirty to forty per thousand, is in itself sufficient proof of defective sanitation; especially if we consider that alcoholism, the indirect cause of so much mortality in England, is almost unknown on the Peninsula. The indebtedness of the country, the paucity of the populations and of the local authorities, render large measures of reform difficult; but our English experience would go far to show that good drainage, however expensive in the first instance, soon proves to be the truest economy. These are points which should be brought forward at the Social Congress about to meet at Valencia, unless recent political disturbances interfere with this useful gathering of *savants;* but we should imagine that the Government will understand that its truest friends are those men of science who are seeking to improve the material prosperity of the country and the health of its population.

## THE QUEEN'S COLLEGES AND PARLIAMENT.

IT is gratifying to find that the attempt of Mr. Parnell to rob the Queen's Colleges of their Prize Fund was not successful. This is an ungracious way of helping Irish Catholic Education. Sir Lyon Playfair says that the test of a college is the number of graduates it produces—that the Queen's Colleges produce one graduate for every three students in attendance, Oxford and Cambridge 1 in 5, Scotch Universities 1 in 7, the London Universities 1 in 11. We do not quite concur in this test of excellence; it is rough and quantitative. We want a qualitative test. But, for all that, the Queen's Colleges have done useful work and turned out some very good graduates. If their conditions of matriculation were a little more stringent they would well deserve all they receive. We have no objection to the Royal University having a little more. But it must be remembered that Catholics get a good share of the advantages of the Queen's Colleges. At Galway 42 per cent. of the students are Catholics.

## ASTIGMATIC KERATITIS.

AT a meeting of the Académie des Sciences recently held, M. Martin of Bordeaux read a paper, of which the following are the principal features. Cases of severe keratitis tending to recur are met with, more especially during the period of youth, which are believed to be dependent on corneal astigmatism. Generally, the affection is of both eyes; when one alone is diseased, it is always that which is the more astigmatic. When the eyes are accommodated for a long time, as in the careful examination of small objects, the repeated contractions of the ciliary muscles are thought to lead to disturbances in the circulation of the eyeball, which disorders tell most on the cornea. Astigmatic keratitis is observed during that period of life when the power of accommodation is at its best. Atropisation of both eyes is the best mode of treatment. The use of cylindrical glasses is the proper means of preventing recurrence.

## THE PROGRESS OF CHOLERA.

THE diminution in the number of cholera deaths in Egypt must be regarded with considerable satisfaction, the more so as it has taken place notwithstanding a recent wide extension of the disease from the towns originally infected. And not only so, but the striking contrast between the progress of the disease in Alexandria and in other large cities affords an indication that one or more of the conditions essential to the spread of the infection is no longer present. The sanitary circumstances which exist in and about Alexandria led to the fear that any prevalence of the disease in that city would have been followed by a wide-spread epidemic. This has fortunately not been the case, for cholera has not seemed capable of making any headway there, and, considering that the greatest danger to Europe lay in any large amount of cholera in that city, the result must be regarded as eminently favourable in so far as extension to Europe is concerned.

## SPLENO-PNEUMONIA.

PULMONARY congestion is a term which comprises all the stages intermediate between pneumonia and simple hyperæmia, according to M. Grancher. This physician has, like many others, had much difficulty in distinguishing, in certain cases, between pleurisy and pulmonary congestion. He thinks it necessary to admit that there exists a special pathological state of the lung, which he proposes to call spleno-pneumonia. The physical signs are insufficient, however, to distinguish this condition from œdema and other affections of the lung. M. Grancher has no post-mortem evidence to offer. Certainly states of lung are met with in the post-mortem room which might with advantage be termed of "splenic" appearance and consistence. But that is hardly a justification of the introduction of such a combination as spleno-pneumonia. The term does not explain itself, but the ease with which it is vocalised may possibly give it life.

## MEDICINES AND THE PARCELS POST.

MR. FREDERICK LONG, of Well-next-the-Sea, in a letter to *The Times* makes a strong case out for using the postman in country districts as a medicine carrier. It is possible that such a use of the postman might be abused. But it seems exceedingly desirable that some way of using and not abusing him should be devised. Mr. Long says that since the new system came into vogue medicine may lie for days because the postmen, who hitherto have been the chief carriers of medicine, are not allowed to take it, and there is no one else provided or procurable for the purpose. It will be hard if the effect of a parcels post is to hinder a kind of service that may be most urgently wanted, and which has hitherto been done by post.

## INQUEST AT GLOUCESTER.

THE exhumation of the body of a farmer, Mr. John Cooke, for the purpose of holding an inquest, seems to have been very unnecessary. He had been attended for a week by Mr. Thomas Ellis, who gave a certificate that he died from the effects of his intemperate habits. The exhumation was ordered by the coroner in consequence of the suspicions of certain members of Cooke's family that he had been poisoned by his wife. These suspicions were shown to be entirely groundless. Seeing that they existed, perhaps the kindest thing to the wife was the course taken by the coroner; but they ought never to have existed.

## YELLOW FEVER.

A SERIES of investigations into the origin of this pestilent fever have just been made by Dr. Domingas Frieze, a Brazilian physician. He has discovered that the blood of the patient contains a micro-parasite, which appears as a minute point (micrococcus), and in one form or another continues in existence after the death of the patient. By experiment it was shown that the injection of a little of the tainted blood into the veins of a rabbit caused death in fifteen minutes. Although this might only seem like ordinary blood-poisoning, it was remarkable that all the blood of the dead rabbit was filled with the peculiar organisms. Moreover, a guinea-pig, kept closely upon earth taken from a yellow fever cemetery, died in five days, and the same peculiarity also appeared in its blood; and from this the experimenter

argues that all such burying-places are constantly liable to distribute the disease. The most interesting part is the detection of the micro-parasite. Objections will readily occur to the minds of all in connexion with the experiments mentioned above. The conclusion that the body dead of the fever should be burnt is only natural if the parasite be the cause of the disease.

## THE SITES OF DIFFERENT MICRO-ORGANISMS.

IT is not at all improbable that the localities which bacteria affect may come to play an important part in the study of micro-parasitic pathology. Whatever be the explanation, there is no doubt that the micro-organisms hitherto found have various relations with the tissues. We are speaking of histological structures, and not of the different organs of the body. For example, the micrococci of variola are found in the vacuolated cells of the rete mucosum forming part of the small-pox pustule or papule. The same may be said of vaccinia. Fehleisen has shown that the zoogloea masses of erysipelas plug the lymph-spaces. From a communication recently made to the Société Médicale des Hôpitaux, we find that these particulars have been verified by MM. Cornil and Babes, who have already distinguished themselves in the field of bacterial pathology (*vide* THE LANCET, vol. i., p. 918, 1883).

## WOOLSORTERS' DISEASE.

A BRIEF memorandum has been drawn up by Mr. Spear for the Local Government Board on the clinical characters of woolsorters' disease or anthrax as it occurs in man, the memorandum dealing both with the internal form of the infection or anthrax fever, and also with the external form or malignant pustule. Mr. Spear is engaged in an inquiry into the occurrence of anthrax amongst tanners and other workers in hides, skins, &c, and it is hoped that medical practitioners who have had experience of the disease, whether in England or in other countries whence hides are exported, will communicate with the inspector.

## SIR EDWIN SAUNDERS.

OUR readers will regret to hear that Sir Edwin Saunders has been obliged to submit himself to the operation of lithotrity. This was performed by Mr. G. Buckston Browne on the 11th of August and the stone entirely removed. The Queen has sent messages of inquiry, and has shown much sympathy towards her old and valued servant. We understand that all has gone on well since the operation, and that there is every prospect that in a short time Sir Edwin Saunders will be fully restored to health and activity.

ON the proposition of the Academy of Medicine of Paris, the Minister of Commerce has just distributed a certain number of rewards to those individuals who have distinguished themselves by having made the largest number of vaccinations, or by having contributed to the propagation of vaccination in France and her colonies during the year 1881. The first prize of 1500 francs was divided between M. Longet of Orleans, M. Mazé-Azéma of Réunion Isle, and M. Petit of Zammorahs, Algiers.

THE eleventh annual session of the American Public Health Association will be held at Detroit, Michigan, on Nov. 13th and the two following days. The subjects announced for discussion are: malaria, foods, vital statistics, and the control and removal of all decomposable material from households. Dr. Ezra M. Hunt of Trenton, N.J., will preside.

THE programme of the International Congress of Colonial Medicine, which is to be held at Amsterdam on the 6th, 7th, and 8th of September, has been issued by the Organisation Committee. In the general assembly on the 6th September Hygiene will form the subject of discussion; on the 7th Quarantines is the subject selected; and on the 8th the Special Education of Colonial Practitioners will be noticed. In the section of Pathology and Special Therapeutics Sir Joseph Fayrer and Dr. Joseph Ewart will present a report on the treatment of exotic and tropical maladies in temperate climates; and in the section of Climatology, &c., Dr. Norman Chevers will present a report on the modifications which certain maladies, and particularly infectious maladies, undergo under the influence of tropical climates.

THE few days of dry weather recently experienced have called the question of water-supply to the front in various parts of the country. At Richmond, Surrey, the efforts of the Vestry to obtain water from a new artesian well have so far been abortive; and a public meeting is to be held to consider the whole question of supply. In Northampton water appears to be very scarce; and on Monday a large meeting was held to express dissatisfaction with the present arrangements, and to call on the Town Council to take immediate steps to provide an adequate supply.

THE prizes gained in the past session at the Ceylon Medical College were distributed on July 5th in the presence of a numerous and influential company. Dr. Vanderstraaten, the principal, read a very satisfactory report, and in conclusion paid a graceful tribute to His Excellency the Governor for his assistance in raising the standard of preliminary and professional examinations, and for increasing the staff of lecturers so as to enable the College to conform to the regulations of the British colleges.

A CORRESPONDENT in a communication dated Cairo, August 6th, informs us that the twelve doctors sent out specially to Egypt during the cholera epidemic, and whose stations we announced on the 11th inst., are now hard at work at their respective posts. All are liberally supplied with medicines and other necessaries they applied for. As soon as the epidemic subsides in the towns they have been sent to, they will be posted to other places where their services will be in greatest demand.

DR. JOHN S. BILLINGS has declined the offer of the Professorship of Hygiene in the Johns Hopkins University (says the *American Medical News*), for the reason that it is impossible for him to hold this place while he is an officer of the army, and he prefers to retain the latter position and continue his library and indexing work, for the present at all events. It is probable, however, that during the coming winter he will give a course of lectures at the University on the subject of municipal hygiene.

DR. A. H. SMITH has been elected Professor of Clinical Medicine and Therapeutics at the New York Post-Graduate School, dividing the former chair with Dr. T. E. Satterthwaite, Professor of Pathology and Clinical Medicine. Dr. Alex. J. C. Skene, of Brooklyn, has been elected Professor of Gynæcology, dividing the chair with the present incumbent, Professor B. F. Dawson.

THE Pope has conferred on Dr. Anthony Colling Brownlees, K.G.G., Vice-Chancellor of the University, and founder of the Medical School of Melbourne, the Knight Commandership of the Order of Pius.

THE fifty-third annual meeting of the British Association, to be held at Southport from the 19th to the 27th of September, will be presided over by Dr. Cayley, Sadlerian Professor of Mathematics at Cambridge. Amongst the presidents of sections are Dr. J. H. Gladstone (Chemical Science), Dr. Ray Lankester (Biology), and Mr. W. Pengelly (Anthropology). On Monday, the 24th, Professor McKendrick of Glasgow will lecture on Galvani and Animal Electricity, illustrated by experiments.

IN reply to a question put to it by the Kensington vestry, in reference to the "business" of a marine-store dealer who took in putrid animal matter, the Metropolitan Board of Works gives the opinion that the mere collection of a mass of refuse matter into one place does not constitute a "business" within the meaning of the 3rd section of the Metropolitan Slaughterhouses Act. The Board considers that such places should be dealt with under the Nuisances Removal Acts.

A CONFERENCE between the Local Government Board and the members of the Metropolitan Asylums Board was held on Tuesday at the offices of the Local Government Board, Whitehall, to consider the best means of carrying out the Diseases Prevention Act, which received the Royal assent in the House of Lords on Monday night.

MR. MEYMOTT TIDY, in his report to the Health Committee of the Southport Town Council in respect of the drainage of the town, expresses his opinion that there is no foundation for the complaint of the defective character of the sewerage, but admits that more effective flushing is desirable.

THE Medical Expedition, consisting of four members, which has been appointed by the German Government to inquire into the causes, prevention, and cure of cholera, left Berlin on the 16th inst., *vid* Munich and Trieste, for Alexandria.

IT is stated that Dr. Abbaté Pasha, Chief Physician of the Khedive and Vice-President of the Egyptian Institute, is satisfied that the present epidemic in Egypt is not Asiatic cholera, but *choléroïde*, a local malady presenting similar symptoms.

THE Medical Council of St. Petersburg has decided to despatch Professor Muench of Kieff to Egypt, to inquire into the origin of the cholera and make observations upon the course of the epidemic.

THE Administration Générale de l'Assistance Publique à Paris has issued orders to the effect that in future candidates for the post of externe will have to produce a recent certificate of revaccination.

IN spite of great precautions, yellow fever has, it is reported, appeared at Pensacola. The disease is raging fiercely at Havana.

DR. COBBOLD, F.R.S., has resigned the Chair of Botany at the Royal Veterinary College.

MR. SMITH, C.E., an inspector under the Local Government Board, conducted an inquiry at Sandback on Wednesday, with respect to a complaint made by a number of the principal inhabitants that the Local Board had made default in providing sewerage and waterworks, and in removing refuse and other matters affecting the sanitary condition of the town.

# HOSPITAL ADMINISTRATION.

## No. X.

### HOSPITAL NURSING.

THERE is no subject which demands greater attention and more interest than that of hospital nursing, and yet none has caused more serious heartburnings and disturbance. In itself the simplest of all the questions affecting sound hospital administration, it has attracted to itself excrescences and abnormalities which have at times threatened to make good nursing almost if not quite impossible. Sometimes, after years of bad nursing in a hospital, the responsible managers have determined to introduce another system. Feeling that they were not competent to deal with this question themselves, they have resolved to farm the nursing through a sisterhood or an association, and have made a contract to pay so much per annum, to be supplied in return with a given number of sisters and nurses. Twenty years ago, when only a few people knew what constituted proper nursing, this method was reasonably sound, and not comparatively too expensive. There was a strong desire to provide a remedy for existing evils; the evils themselves were still green in the memory of all, and the newcomers had a fair field and abundant favour. In this way there is no doubt that the sisterhoods and associations did a useful work. They acted as pioneers. They taught the new doctrine, and enforced its application, by the practical experience of their agents. These agents were at the outset carefully selected, and possessed for the most part discretion and tact. Hence the new system, though opposed by many, ultimately became fairly popular, and therefore successful in the main. Unfortunately the agents grew less careful, less capable, and more and more self-asserting as the sisterhoods and associations extended their work, until at times very serious difficulties have arisen. It is but to record admitted facts to state that wherever and whenever a nursing scandal has arisen at a hospital nursed by a sisterhood or an association, it has been almost entirely due to the arrogance, the incapacity, or the fatuous folly of the agent who acted as the guiding spirit of the sisterhood or association within that particular hospital. The committee of the hospital and the council of the nursing association have always been able to work together; but a female despot within a hospital becomes unbearable; and at the present time it is satisfactory to know that this has come to be recognised on both sides. But there have been other difficulties to overcome. Here and there the representative of the hospital governors has lacked discretion, and has gone the wrong way to work when trying and earnestly desiring to introduce the best system. Having determined upon the change, he has carefully selected a capable woman to introduce it. He has, however, failed to consult those who ought to have known his intentions; and his colleagues, the medical staff, and his executive officers have all been left in ignorance. Instructing the new matron to initiate certain specified changes, and assuring her of his support and counsel, he has suddenly introduced her into his hospital, and has sprung a mine upon its inmates, his unfortunate nominee, and himself. Too proud to admit his mistake, and too obstinate to remedy it, he has done irreparable harm to his hospital and cruel injustice to the new matron. Anyone not possessed of large hospital experience might justly think that these remarks are but truisms. Unfortunately, however, the history of hospital nursing in this country shows how needful it is that the dangers referred to should be pointed out if the new system is to be attended with success.

### THE BEST SYSTEM.

The members of any committee who desire to make the nursing at their hospital as efficient as it is possible to make

it, will find the task easy if they set about it in the right way. No one who knows rightly how to manage a hospital disputes that the medical profession, through the honorary or acting medical staff, must have an authoritative voice in the administration of the wards and the control of the nursing. The duty of the nurse towards the doctor is twofold: (1) She must strictly carry out his directions as to the treatment of the patient; and (2) she must observe the patient's condition, notice any changes that take place, and watch the effects of the treatment of each case, to enable her to give a short, clear, and correct account to the medical attendant at each visit. In a word, the nurse is for the patient, and not the patient for the nurse. In private houses when a case of sickness occurs, the authority of the medical attendant is absolute in all things affecting the treatment and nursing of the patient. So, also, when a patient is under treatment in a hospital ward, the nurses in attendance upon him must be entirely subordinate to the medical attendant in charge of the case. From this position there can be no deviation in any well-managed hospital, and to question it is to display a surprising ignorance of the soundest principles of hospital administration, and a lamentable disregard for the welfare of the patients. Next in importance to a right understanding of the position of the medical attendant to the nurse comes the selection of the lady superintendent or matron. The committee must secure a gentlewoman to take the supreme command over her department, and having secured such a chief of division they must absolutely trust her. This may seem a trite statement; but at one of the best managed of provincial hospitals, where the management is on the whole exceptionally good, the committee for this reason resent the suggestion even of any modification in the existing methods, and will not permit the lady superintendent to even order a slight modification in the duties of the wardmaids and probationers without their sanction. The lady superintendent before leaving for her holiday made certain small alterations in the duties devolving upon the wardmaids and the nurses in a particular ward—the nurses instead of the wardmaids were to polish the floor, or *vice versâ*, for certain necessary and sound reasons; but the nurse, not liking it, was allowed to complain to the committee visitor, and a serious difficulty is likely to result from this incident. If a committee cannot trust its chief of department, let them get rid of her at once, but so long as she is in charge so long must her authority be respected, not only by the nurses and officials but by the committee also, and her instructions be implicitly carried out. If this is not done, sooner or later all discipline will be destroyed, and without discipline and implicit obedience to orders, good nursing is an impossibility. Having selected the lady superintendent, arrangements must be made for securing the right kind of material in the shape of probationers, and for their proper and thorough instruction. Few have any idea of the number of women who think they are capable of becoming nurses, but who break down within a month of their engagement. Only about 60 per cent. of those who are approved as probationers, after a month's trial, eventually become trained nurses. The class of young women between twenty-five and thirty-five years of age who are most suitable are drawn from the agricultural districts. They have usually had a fair education, and are blessed with sound constitutions. During the last few years, however, gentlewomen who cannot afford to pay the usual fees for training have been taken on as probationers at certain hospitals, where they are fed and clothed, but not paid during their year of probation. Sufficient time has not elapsed to judge this system on its merits, but those who have tried it speak highly of the results so far achieved, and proclaim it an undoubted success. Of course probationer nurses mean, or ought to mean, a thorough system of training in all the duties of a hospital nurse. The course ought to consist of practical instruction in the wards, day and night duty, lectures, minor surgery and bandaging, hygiene, and sick-room cookery. Much of this teaching has to be undertaken by some of the medical staff, and to the discretion of the teacher will belong the credit or otherwise of the result achieved. It is not now possible to go more into details; but any hospital committee which selects a capable administrator, and insists upon taking the training of the nurses into its own hands, is sure to secure the maximum of comfort and good nursing for the patients, and the minimum of anxiety and trouble for the managers.

### EXECUTIVE ERRORS.

These consist of errors in making internal and routine regulations which are not well considered beforehand. Thus the question of arranging for the house-surgeon and matron of the smaller general and county hospitals to take all their meals together may be justly described as an executive error. It is not fair to either officer; it may produce consequences which are best avoided; and on all grounds it is undoubtedly an arrangement which should not be maintained by the order of the committee of management. A lady of delicate feeling not unnaturally objects to have such a condition imposed upon her by the committee; and parents are, not surprisingly, opposed to their sons being forced to spend a fair portion of their leisure in such charming society. Experience proves this practice to be unpopular with the officials more immediately concerned in the arrangement, and it should not be continued in any well-managed hospital. Similarly, the introduction of lady nurses has tended to interfere with the prosperity of certain medical schools, because parents have, rightly or wrongly, got it into their heads that their sons will possibly bring home a handsome wife from the hospital before they return with a diploma. Students are sent to be instructed in the science and art of medicine and surgery, and it is not unnaturally felt by parents and guardians that those medical schools where the students not unfrequently marry the nurses and sisters are to be avoided, because the discipline and management appear to be less efficient than they have a right to expect. These may appear to be trifles, but their importance must not be overlooked.

## Pharmacology and Therapeutics.

### JAMAICA DOGWOOD.

WE have received from Messrs. Sumner and Co. of Liverpool specimens of dogwood bark and of their fluid extract of Jamaica dogwood. Preparations of this drug have long been familiar to us, having been introduced to the notice of the profession some years ago by Messrs. Parke, Davis, and Co. of Detroit. The piscidia erythrina, erythrina piscipula, or Jamaica dogwood, belongs to the natural order Leguminoseæ. It is a native of the West Indies, and, as its name implies, the chief source of supply is from Jamaica. When fully grown the tree attains a height of from twenty to twenty-five feet. Judging from the specimens before us the bark occurs in pieces from two to four inches in length, from one to two inches in breadth, and about one-eighth of an inch in thickness. The fluid extract has an agreeable ethereal smell, a pleasant taste, and becomes milky on the addition of water. It is said to be a powerful anodyne and one of the best remedies for neuralgia. In many instances it is reported to have relieved pain and ensured sleep after the failure of opium, chloral, and many other remedies. We have taken it in full doses, and have used it largely clinically. It is sometimes useful, but it is not likely to supersede opium, at all events not at present.

### SUMNER'S "PULV. ANTHEM. C. PAPAV."

Messrs. Sumner and Co. of Liverpool are desirous of calling attention to the fact that in many parts of England "camo-

miles and poppyheads" are considered a good remedy for the relief of local pain. For many years, they say, they have extensively sold a mixture of the two drugs powdered together, and send us a sample in proof of their statement. We have no doubt that their "pulv. anthem. c. papav." is very useful for making poultices; but we are at a loss to see in what the novelty consists.

### SUMNER AND CO.'S PREPARATIONS OF BORAX AND BORACIC ACID.

These specimens are certainly deserving of attention. Tincal, impure borax, or, as it is often called, crude borax, occurs native on the borders of certain lakes in Thibet and Persia, from the waters of which it is obtained by spontaneous evaporation. Californian borax comes, as its name implies, from California, the existence of a borax lake in that country having been discovered about a quarter of a century ago. This lake is a small offset of a large sheet of water called Clear Lake, situated in the midst of a volcanic region, about 100 miles north of San Francisco. The smaller lake is of variable dimensions, being sometimes quite dry, and at other times measuring a mile in length and half a mile across. The borax, being the least soluble of the saline constituents, crystallises out, and as soon as one deposit is removed another forms, the supply being apparently inexhaustible. Boracic acid is now so largely used for antiseptic and other purposes, that reliable specimens are welcome.

### HYPODERMIC ERGOTIN TUBES.

Messrs. Wyleys and Co. of Coventry are now sending out ergotin (Bonjean's) in tubes, each containing five grains. On the addition of a few drops of water a fresh solution is immediately obtained, and by reference to a paper scale attached to the glass any required dose can be given. Ergotin is of such inestimable value, not only in obstetric practice, but for checking hæmorrhage of all kinds, that it is a great boon to obtain it in a portable form.

### DOUNDAKÉ.

MM. Bochefontaine, Féris, and Marcus have lately examined the physiological properties of the bark of doundaké or doundakine. This shrub is a native of the West Coast of Africa, and belongs probably to that large order Rubiaceæ, which includes in its members the cinchonas, ipecacuanha, catechu, and coffee. The bark, employed by the natives as a febrifuge, has a red-orange colour and a bitter taste. Venturini believed that salicin was present in the bark. A crystalline substance can be extracted, which is soluble in water and alcohol, with an alkaline reaction, and has, indeed, the chemical characters of an alkaloid. No salicine was discovered in any of the bark. The hypodermic injection of a quantity of the extract, equivalent to two grammes of the cortex, kills a frog in thirty-six hours. In a young guinea-pig weighing 100 grammes, death ensued in forty minutes. The physiological effects of the cortex and of the alkaloid are identical, and may be thus summarised. After two to five minutes in the frog, a general weakness is observed, reflex and spontaneous movements are diminished, and soon the animal is incapable of assuming its natural posture. It will retain any attitude, however odd, in which it may be placed. Nevertheless, the muscular contractility, as well as the nervous irritability, are preserved, and the cardiac contractions are not sensibly modified. Later on complete relaxation of the muscular system occurs, the respiratory movements become irregular and intermittent, there is abolition of reflex motion, and finally the heart ceases to beat.

### ACETALS.

Diethylacetal ($C_6H_{14}O_2$) has been recently represented by von Mering as an excellent substitute for chloral. It is a fluid of bitter taste, slightly hot, soluble in eighteen times its volume of water, and mixes in all proportions with alcohol. Its boiling-point is 104° F., and specific gravity 83. Experiments made on frogs and mammals prove that the acetal acts upon the central nervous system, whose functions it suspends, commencing first with those of the cerebral hemispheres, and thence descending but paralysing respiration before stopping the cardiac action. Six out of eight human subjects experimented upon were sent to sleep in the course of the day after a dose of from ten to twelve grammes. No unpleasant after-effects were noted in any instance. The time required before sleep set in is not mentioned. M. Stoltenhoff has also made some observations, which in the main agree with the above conclusions. He employed the acetal in different forms of nervous disease, associated with insomnia (*Central für Nervenheilkunde*, No. 6). M. O. Berger of Breslau has not met with corresponding success. In none was sleep lasting more than two hours produced; in many no effect was observed; in some giddiness, flushing of face, and vomiting were recorded. Leyden of Berlin has been even less fortunate. It is possible that the composition of this drug—ethylidene diethyl ether, $CH_3CH(OC_2H_5)_2$—has not been uniform in every case.

### PARALDEHYDE.

Paraldehyde is a polymeric modification of aldehyde. It was discovered by Wiedenbusch, and has been the object of an interesting work by MM. Kabulé and Zincke. Recently Enrico Morselli has published the results of some researches on the hypnotic and sedative action of the drug. Paraldehyde is said to be exempt from the disagreeableness of opiates and chloral. It procures a calm sleep, unaccompanied by headache, digestive disturbances, or vomiting. Morselli has employed it with advantage in cases of mania, melancholia, delirium with hallucinations, progressive general paralysis, epilepsy, &c. Neuralgia and odontalgia have been relieved thereby. In cases of bronchitis, pneumonia, and heart disease, attended with insomnia, the medicine has done good. Three grammes (52 minims) is the ordinary dose to procure a sleep of four to seven hours' duration; its effects set in in about half an hour after ingestion of the drug. Paraldehyde has succeeded where chloral has failed.

### KAIRIN.

This new antipyretic agent has been the subject of fresh and elaborate clinical researches by Paul Guttmann (*Berliner Klin. Wochen.*, No. 31). The number of experiments made upon forty-two patients was seventy-two; cases of pneumonia, measles, phthisis, typhoid fever, scarlatina, pleurisy, peritonitis, erysipelas, ague, and septicæmia were investigated. The drug was administered whilst the fever was present, and not likely spontaneously to undergo alterations. The administration was begun in the latter part of the morning and continued till the end of the afternoon. In the majority of cases the temperature ranged from 39·5° to 40·5° Centigrade, when the observation was begun. It was shown that kairin, given in hourly doses of one-half to one gramme, was followed by a gradual fall in the temperature of the body, so that in from three to four and a half hours after commencement, in the majority of cases, a considerable fall had taken place, and in several the thermometer showed a normal temperature. By repeated gramme doses of kairin the normal may always be attained according both to Filehne and Guttmann. The course of the downward curve is thus gradual. In many patients a notable degree of sweating was observed, especially in cases of phthisis. As the temperature falls the pulse becomes less frequent. No unpleasant symptoms were caused by the kairin, which was used freshly prepared; specimens which have been kept for some time may produce alarming symptoms, such as cyanosis and collapse. The antipyretic effect of kairin is not weakened through repeated use; each new dose is followed by the usual result. Kairin, like other antithermic agents, is not capable of shortening the disease or altering the symptoms. Discolouration of the urine sets in about twelve hours after the employment of the drug, and lasts generally about twenty-four hours. Compared with quinine, kairin acts more rapidly, but its effects are of shorter duration. Kairin, however, given in hourly doses of one gramme, after four doses has a more powerful and constant anti-febrile effect than quinine in doses of one and a half to two grammes. The higher price of kairin will probably postpone its extensive introduction.

## OFFICIAL REPORT ON CHOLERA IN EGYPT.

SURGEON-GENERAL HUNTER has submitted a brief report on the cholera epidemic in Egypt, and it deals with facts up to Aug. 6th. On one important particular, concerning which a good deal has been said and written, Dr. Hunter expresses a decided opinion, and, having regard to his previous experience in the matter, that opinion will doubtless be very generally accepted. As the result of an examination of numerous cases of the prevailing disease, he believes that in all its essential features the type does not differ from cholera as he has frequently had it under personal observa-

tion in India. Most of the statements to the contrary have been made by those who have had no opportunity of seeing the patients affected, whereas Dr. Hunter's opinion is based on his personal visits to the cholera hospitals. All that has been said as to the conditions of filth which have gone so far to favour the spread of the epidemic receives its fullest confirmation in this report. It is simply an abuse of words, says Dr. Hunter, to talk of sanitation in connexion with Cairo, every sanitary law being grossly set at defiance. The canals are sewers, and the water-supply is contaminated by excreta and filth. Fortunately, however, for the city, a system of scavenging was organised under the emergency, and, herculean as the task was, Cairo has been swept fairly clean, and so a first instalment of sanitary administration, which, to be of any real value, must be sustained and supplemented by permanent works, has been inaugurated under such pressure as the British Government could bring to bear upon an organisation which hardly existed except in name, and which was largely officered by incompetent and obstructive officials. Dr. Hunter fortunately found himself supported by the "Conseil Supérieur," and through its influence an effort was made to attack the disease both in towns and villages after the Indian fashion. Quarantines and cordons, which probably never failed more completely than in Egypt, have been done away with; and the formation of a sanitary department, which will be inaugurated by the arrival of Indian medical officers and trained Mussulman hospital assistants, is to be established. The success of Dr. Hunter's mission has also been largely favoured by the readiness with which his suggestions have been met by the Egyptian Ministers, and especially by the Minister of the Interior, and the head of the Egyptian Medical Service. As regards the mortality which has taken place, it appears that up to July 31st, 12,600 fatal attacks had been recorded; but registration in Egypt is most defective, and Dr. Hunter's experience goes to point to a real mortality amounting to nearly double the recorded number.

The report is one which in no way affects to be complete; it can only be regarded as a first intimation to the Government that from the administrative point of view Dr. Hunter's mission has been attended with success. The country, and especially the medical profession, will, however, anxiously await the much more complete report which will hereafter be submitted, and it is to be hoped that this document will not fail to supply much useful and scientific information as to the etiology of cholera, and as to the conditions with which its origin and development in Egypt have been associated. Other countries have organised special commissions for this purpose, and, whether the information which this country should obtain is to be acquired under Dr. Hunter's own supervision, or as the result of some skilled organisation which he may succeed in establishing, it is earnestly to be hoped that England will not be behind other countries in a matter in which it has such special and vital interests.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5915 births and 3342 deaths were registered during the week ending the 18th inst. The annual death-rate in these towns, which had steadily declined in the five preceding weeks from 22·2 to 18·4 per 1000, rose again last week to 20·2. During the first seven weeks of the current quarter the death-rate in these towns averaged 20·2 per 1000, against 22·7 and 22·1 in the corresponding periods of 1881 and 1882. The lowest rates in these towns last week were 12·4 in Halifax, 13·4 in Norwich, 15·0 in Bristol, and 16·0 in Hull. The rates ranged upwards in the other towns to 25·9 in Preston, 26·1 in Manchester, 26·3 in Sunderland, and 27·2 in Liverpool. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had declined in the four previous weeks from 813 to 601, were 698 last week; they included 343 from diarrhœa, 117 from measles, 99 from scarlet fever, 58 from whooping-cough, 44 from "fever" (principally enteric), 17 from diphtheria, and 11 from small-pox. No death from any of these zymotic diseases was recorded last week in Halifax; whereas they caused the highest death-rates in Liverpool, Sheffield, and Preston. The deaths attributed to diarrhœa in the twenty-eight towns were more numerous than in the previous week, the disease being most fatal in Cardiff, Leicester, Sheffield Salford, and Preston. Measles was proportionally most fatal in Newcastle-upon-Tyne and Huddersfield; scarlet fever in Leeds and Sheffield; whooping-cough in Brighton and Plymouth, and "fever" in Huddersfield. The 17 deaths from diphtheria in the twenty-eight towns included 9 in London, 2 in Manchester, and 2 in Leeds. Small-pox caused 3 deaths both in Birmingham and in Liverpool, 2 in London, 2 in Sunderland, and 1 in Wolverhampton. The number of small-pox patients in the metropolitan asylum hospitals, which had been 48 and 56 on the two preceding Saturdays, was 50 at the end of last week; 9 new cases were admitted to these hospitals during the week, against 6 and 16 in the two preceding weeks. The Highgate Small-pox Hospital contained but 4 patients on Saturday last, no new case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 163 and 177 in the two previous weeks, further rose to 178 last week, and were 6 above the corrected weekly average. The causes of 96, or 2·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Plymouth, and Huddersfield. The proportions of uncertified deaths were largest in Wolverhampton, Bradford, Hull, and Newcastle-upon-Tyne.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 21·6 and 19·7 per 1000 in the two preceding weeks, was equal to 20·2 in the week ending the 18th inst.; this rate corresponded with the mean rate during the week in the twenty-eight English towns. The rates in the Scotch towns ranged from 12·8 and 13·3 in Leith and Aberdeen, to 27·2 in Perth and 34·4 in Paisley. The deaths in the eight towns included 89 which were referred to the principal zymotic diseases, showing a decline of 20 from the number in the previous week; 43 resulted from diarrhœa, 13 from scarlet fever, 11 from whooping-cough, 9 from "fever," 7 from measles, 6 from diphtheria, and not one from small-pox. These 89 deaths were equal to an annual rate of 3·8 per 1000, which was 0·4 below the rate from the same diseases in the large English towns. The highest death-rates from these diseases in the Scotch towns last week occurred in Greenock and in Glasgow. The 43 deaths attributed to diarrhœa were within 5 of the number returned in the previous week, but were 19 below the number in the corresponding week of last year; 26 occurred in Glasgow and 4 both in Dundee and Greenock. The 11 deaths from whooping-cough, of which 10 were returned in Glasgow, showed a considerable decline from recent weekly numbers. The 13 fatal cases of scarlet fever showed an increase of 2 upon the number in the previous week, and included 12 in Glasgow. Six of the 9 deaths referred to "fever" were also recorded in Glasgow; while the 7 fatal cases of measles included 3 in Glasgow and 2 in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns were 72 last week, showing a considerable increase upon the numbers in recent weeks, and were within one of those returned in the corresponding week of last year. The causes of 73, or 15 per cent., of the deaths in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been but 17·2 and 20·9 per 1000 in the two previous weeks, further rose to 24·9 in the week ending the 18th inst. The mean death-rate in the city during the first seven weeks of the current quarter was equal to 21·5 per 1000, against 20·5 in London and 17·4 in Edinburgh. The 167 deaths in Dublin

last week showed a further increase of 27 upon the low numbers returned in the two previous weeks; they included 7 which were referred to whooping-cough, 5 to diarrhœa, 3 to "fever," 1 each to scarlet fever and diphtheria, and not one either to small-pox or measles. Thus 17 deaths resulted from these principal zymotic diseases, against 6 and 13 in the two previous weeks; they were equal to an annual rate of 2·5 per 1000, the rates from the same diseases being equal to 3·9 in London and 1·5 in Edinburgh. The 7 deaths from whooping-cough exceeded the number returned in any recent week, and the fatal cases of "fever" were also more numerous. The 3 deaths from "fever" also showed an increase upon the number in the previous week. The deaths both of infants and of elderly persons showed a further increase upon recent weekly numbers. Seven deaths were referred to different forms of violence. The causes of 33, or 20 per cent., of the deaths registered during the week were not certified.

### THE SCOTCH QUARTERLY RETURN.

It seems strange, and it is certainly much to be regretted, that the Scotch Quarterly Return should still lack some of the most valuable information supplied by the Quarterly Returns issued by the Registrars-General of England and Ireland. In its main characteristics the Scotch Quarterly Return just issued corresponds with the English returns issued prior to 1870. It is now nearly fourteen years since the English Quarterly Return was reformed so as to give important detailed mortality statistics respecting causes of death and the ages of decedents in each registration sub-district. The Scotch return now to hand gives no information as to ages, and nothing as to causes of death except for the eight large towns for which weekly returns are issued. The facts given for the eight towns are, moreover, presented in such a form as to be practically useless for comparison with the figures published for the large towns in other parts of the United Kingdom. A table gives what are called "equalised" figures for each of the three months, but no figures are given for the entire quarter, neither can they be obtained from the monthly figures on account of the "equalisation." No calculated annual death-rates from the principal zymotic diseases are given for the eight towns, but only the proportion of the deaths from these causes to the deaths from all causes, which are less trustworthy and useful for comparative purposes. The death-rate in Scotland from all causes last quarter was equal to 21·4 per 1000, and slightly exceeded the mean rate in the ten preceding corresponding quarters; it was also 1 per 1000 above the rate that prevailed in England and Wales. The average death-rate in the eight Scotch towns does not appear to be given, so it is impossible to compare it with the mean rates in the large towns of England or Ireland. The rates in the eight towns ranged, however, from 19·5 in Edinburgh and Aberdeen, to 27·3 both in Dundee and in Greenock, and 32·0 in Glasgow. The highest rates in any of the twenty-eight largest English towns last quarter were 26·6 in Liverpool, and 27·5 in Manchester.

## THE SERVICES.

Surgeon-General J. Sinclair, late Principal Medical Officer in Ireland, has been appointed to succeed Surgeon-General Franklyn as Principal Medical Officer at Malta.

Deputy Surgeon-General A. D. Gulland has taken over the duties of Principal Medical Officer on the staff of the Brigadier-General commanding the Belfast district.

BOMBAY MEDICAL ESTABLISHMENT.—Surgeon-Major Henry Robert Lawrence McDougall, M.D., to be Brigade-Surgeon.

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment): Acting Surgeon Paul Belcher resigns his appointment.

ADMIRALTY.—Staff Surgeon John Guitton Clarke has been promoted to be Fleet Surgeon in Her Majesty's Fleet, with seniority of August 15th, 1883. Patrick Donellan has been appointed Surgeon and Agent for Kilmore, vice Crean.

ON the 16th inst. an "Olde Englyshe Fayre" was opened in the Hawick Exchange for the benefit of the funds of the proposed Cottage Hospital in the town.

# Correspondence.

"Audi alteram partem."

## "ON MILK DIET AND THE USE OF ANTIPYRETICS IN ENTERIC FEVER."

*To the Editor of* THE LANCET.

SIR,—My experience of milk accords closely with Mr. Allan's. Though pure milk may generally be given *ad libitum*, vomiting, or an increase in flatulence, abdominal pain, or diarrhœa, demands examination of the ejections, and, if curds be discovered, a more sparing use of it, or its dilution with lime, soda, or ordinary water, or, more rarely still, its discontinuance. As a matter of nursing, "long" drinks of any kind should not be given; indeed, with food and stimulants, the golden rule is regularity in the administration of "little and often." Although I have used beef-tea in some 400 cases, I have not known it increase diarrhœa; whilst, if good, as a "pick-me-up" it is almost equal to champagne. Eggs are invaluable from the diverse ways of giving them. As in health man varies his diet, so in fevers, I think variety within limits is essential. Taste is much blunted in enteric fever, and even turpentine is often swallowed unheeded. Bread and butter, and even lard in cooking, were deemed potent causes of relapse by the old nurses of the London Fever Hospital. Perhaps when we know more of relapse, diet may not often be held a sufficient cause. As a fact, pyrexia alone does not always contraindicate the use of solid food. In several cases, with a temperature of 102°–103° F. (associated with hunger, clean tongue, regular bowels, and absence of abdominal trouble), I have, after quinine had failed, secured rapid defervescence and satisfactory convalescence by giving solid food and getting the patient up. An autopsy on a patient so circumstanced, who was kept on low diet, showed nothing to account for death, and every intestinal ulcer was found to be healed, surrounding pigmentation alone remaining. From this I got the clue, and inferred that disturbed temperature, above or below the normal, may be a sequel of enteric fever, and its remedy a return to normal living.

Antipyretics I have used freely. Quinine (twenty to thirty grains) lowers the temperature usually for twelve to twenty-four hours, and thus saves nurses trouble in bath-giving and patients the inseparable disturbance. Given with baths, it often breaks the reiterated rise of an obstinate temperature. Symptoms are not improved by it, and in this it contrasts markedly with baths. It takes about five to six hours to act, a fact of practical importance. Salicylic acid seems to prevent relapse. Though I have used it in several hundred cases of scarlatina and enteric fever, I have not yet known it affect the heart injuriously. It has seemed, in a few cases, to produce—in scarlatina, maniacal, and in enteric, erotic—delirium on the night but one after its administration had ceased.

Cold is, I think, our best antipyretic. Its use at the London Fever Hospital since 1870 shows a steady tendency to supersede other methods by the bath, to use colder water, and to shorten the time of immersion, until, with Dr. Cayley, we employed a temperature at starting of 60° to 70° F. for five minutes or less, except in obstinate cases. I have noticed long immersion (twenty to thirty minutes) cause some exhaustion, and render the pulse imperceptible—transitory effects, however. Our aim is to improve symptoms, probably by shock, and not merely to lower temperature, for which purpose quinine would be simpler, and, though slower, more prolonged. We have the bath, douche, compress, sponging, and pack. Compared with the bath, the douche alone produces such shock; the compress alone creates less mess and disturbance of the patient, and, though sure but slow in action, and useful where absolute rest is necessary (as in hæmorrhage, &c.), it tends to produce hypostatic pneumonia by, as it is ordinarily applied, keeping the patient long on his back; none lowers temperature so quickly and certainly. Indeed, no single method is equal to the bath in potency and range of action; while with tact and familiarity movement of the patient may be reduced almost to *nil*. While in the bath the patient's head should be douched by some such means as a large and fully charged sponge. Its effects may thus be enumerated:—1. It reduces

temperature at once; in exceptional cases colder water or longer immersion may be needed; 103° to 105° F. in the axilla is easily lowered to 96°–99° F., equivalent after a bath to a rectal temperature of 99°–101° F. In proportion, the axillary temperature falls less than the rectal immediately after the bath, and rises more after an interval. 2. It slows the pulse on an average by twenty beats a minute (except in cases in which it is but little quickened), steadies it, and diminishes dicrotism, and thus improves its tone. 3. It tends to moisten the tongue, improves the aspect of the patient, promotes the taking of nourishment, and courts refreshing sleep. 4. It restores consciousness and dissipates delirium, particularly when noisy, and especially if used with opium and brandy; and thus it saves nurses wearing labour and patients the discomfort, or worse, of physical restraint. 5. It causes forced inspiration, and, by expanding the lungs, lessens the tendency to hypostatic pneumonia. 6. It has seemed to prevent excessive diarrhœa, and to render abortive cases bathed from the beginning. On the other hand, it increases relapse, and patients rarely like it, but generally simply detest it.

I am, Sir, your obedient servant,

Ladbroke-grove, W., August 21st, 1883. W. TONGE-SMITH.

## "LENGTH OF INCISIONS IN OVARIOTOMY."

*To the Editor of* THE LANCET.

SIR,—If Mr. Owens had cared to pursue his observations further I could have shown him three cases I operated upon last week, where the lengths of the incisions were as follows: 1. Fibroid tumour, removal of ovaries and tubes, troublesome bleeding from adhesion of one tube to side of pelvis; incision enlarged to two inches and a half. 2. Parovarian cyst ruptured and adherent; length of incision two inches. 3. Removal of both ovaries and tubes, degenerated and adherent; length of incision one inch, five lines. All of these have done well, and have not given any anxiety. I have long recognised the value of short incisions; but I could show him some cases where the incisions have not been short or the results gratifying. I could not point out any case where the solid part of a tumour has been removed through an opening of smaller diameter than that represented by the narrowest diameter of the growth itself. Two circumstances should be noted to obtain a correct impression of his remarks: whether the incision is measured upon a distended abdomen at the time of operation, or when this is completed and the parts brought together by stitches; and what is meant by "ovariotomy," some including under this term the removal of ovaries of normal or slightly increased size. In the majority of cases of abdominal section it is sufficient to get two fingers into the abdomen, and it is hardly possible to manipulate well without; the transverse measurement of these may represent the length of the incision. In some cases of thin cysts I have put not more than one finger into the cavity to explore, but I am satisfied that where there are adhesions or bleeding, these cannot be properly dealt with in any other way than by inspection. The condition of the parts—thickness or thinness of the wall, depth of pelvis, and position of omentum and intestine—these regulate the incision necessary.

I cannot tell how Mr. Owens interprets Listerism, but I am assured that the perfection of modern surgery is largely indebted to Mr. Lister's forcible advocacy of absolute cleanliness and attention to details. It is usual, I have found, for the temperature to be slightly raised when the spray or carbolic acid solutions are used, but then this can be estimated accordingly; where cases mean to do well it is very soon indicated, and generally there is very little elevation of temperature after thirty-six hours. Mr. Sydney Jones no doubt is very well able to defend his own practice, but the cases quoted point to one great fact, that in a general hospital real and substantial success may be attained.

I am, Sir, yours truly,

Birmingham, Aug. 18th, 1883. EDWARD MALINS.

*To the Editor of* THE LANCET.

SIR,—It is hardly possible that Mr. Owens can have carefully read the cases done by Mr. Sydney Jones which he quotes, for he cites without details cases done by another surgeon, and quite overlooks the reason for the incision in the case of E. J——, which was about six inches—viz., that the wall of the cyst was intimately adherent to the peritoneum; and, besides, there were other adhesions which were somewhat numerous and firm. The operation was difficult, even with a long incision, and the increased length of the wound was a safeguard against that bruising of the edges of the wound which must otherwise have resulted from the necessary manipulation. Again, it is difficult to see how any large amount of solid matter could be got through an incision an inch and a half long. Does practical experience of cases after ovariotomy prove that long firm cicatrices cause any inconvenience to patients after the operation? I think not. Is it rare to find a certain amount of traumatic temperature after an operation of the magnitude of those under discussion? I think that it is the practice of some ovariotomists to operate only on cases likely to improve their average; perhaps those mentioned by Mr. Owens were cases of the kind. The increased length of incision certainly facilitates operation, and the healing process is not thereby delayed; the wound being practically healed at the end of a week, when the first dressing is done. I have seen Mr. Sydney Jones perform ovariotomy in a very large number of cases, and it is his practice to regulate his incision in accordance with the kind of tumour and the history of the case, preferring of course an incision compatible with ease of performance of operation and safety of patient. Spray of the strength of 1 in 80 carbolic acid is used, and antiseptic dressings are rigidly adhered to.

I am, Sir, yours obediently,

WILLIAM H. BATTLE, Surgical Registrar.

St. Thomas's Hospital, August, 1883.

## ABDOMINAL TUMOURS.

*To the Editor of* THE LANCET.

SIR,—I have read with interest the report of a case of an "Enormous Myxo-lipomatous Tumour within the Abdomen," reported by Joseph Wigglesworth, M.D., in your journal of June 30th. In connexion with the account of this interesting case, I beg to call attention to a specimen of colossal abdominal tumour which I presented to the Pathological Society of this city, under the date of February 27th, 1873, a record of which appears in volume iv. of the Transactions of the Society. During life the late Dr. Washington L. Atlee was asked to see a patient, a woman aged about fifty years, in consultation, with a view to the performance of ovariotomy. Although the symptoms presented were clearly those of cystic ovarian disease, the precaution of tapping was taken, and the result was such as to decide against any operative interference. The history was that of an abdominal growth which had, in a comparatively short period of time, attained enormous proportions. The circumstances under which the autopsy was made were such as to preclude any very accurate dissection. It was quite manifest that the growth originated and was developed within the peritoneal cavity. No pedicle could be discovered. Extensive adhesions existed between the parietes and viscera of the abdomen. The weight of the tumour was estimated to be between forty and fifty pounds. I transcribe the report of the committee on morbid growths, to which the specimen was referred. "Your committee, having examined the colossal abdominal tumour presented by Dr. Mears, beg leave to report that they consider it to be a myxo-sarcoma. Different histological elements were found to exist in different portions of the growth. The prevailing structure, however, is the sarcomatous, with its large round nucleated cells; these are embedded in a delicate network of fibrillated interstitial substance. A few giant cells, containing eight to ten nuclei, were also observed. At other points, where the growth assumed a softer, semi-transparent, jelly-like consistence, the prevailing structure is myxomatous, with its stellate anastomosing cells embedded in a hyaline substance that is rendered cloudy upon the addition of acetic acid." From the microscopic appearances alone, the committee was unable to determine the origin of the growth. "Klebs, who has examined a number of immense and rapidly growing abdominal tumours closely in every respect resembling this specimen, states that they are, as a rule, either lympho-sarcomata of the mesenteric glands, or myxomatous degenerations of lipomata of the omentum." Feeling that this case possessed some features of interest, which it might be

profitable to study in connexion with that so fully reported by Dr. Wigglesworth, I have taken the liberty of calling attention to it in your columns.

I am, Sir, your obedient servant,

Philadelphia, July 23rd, 1883. J. EWING MEARS, M.D.

*To the Editor of* THE LANCET.

SIR,—In THE LANCET of July 7th is the report of a case of abdominal tumour with an unusual course and termination, treated in the Leeds General Infirmary, under the care of Dr. Clifford Allbutt. About eight years ago I had a case here under treatment so nearly resembling Dr. Clifford Allbutt's in its general features, and also in its particular details, that it must have been the same disease. No notes of the case were taken, but its obscurity and apparent strangeness impressed me so vividly at the time that a distinct recollection of its main features has remained with me ever since. The case was very shortly as follows: A. H——, aged about twenty, began to complain in December, 1875, of very severe pain in the abdomen of somewhat intermittent character, growing always worse at night, and be coming so intense as the night advanced that he rolled about in the bed in agony, sometimes finding most relief on his elbows and knees. On these occasions, as the pain reached this degree, I night after night gave a hypodermic injection of morphia, which almost invariably subdued the pain, and allowed him to get a few hours' sleep. Vomiting was occasional only, not so distressing and prominent a symptom as in Dr. Clifford Allbutt's case. This state of matters went on for about six weeks; the wearing pain, with intense paroxysms, the want of sleep, the inability, from derangement of the digestive organs, and sometimes pretty frequent vomiting, to obtain more than a very small amount of nutriment, reduced the patient to a state of great weakness and emaciation. About this time an abdominal tumour was noticed, which rapidly increased in size. It was situated between the umbilicus and epigastrium, and soon attained the size of a fœtal head, having a globular form and a feeling of elasticity and distension. When the tumour began to assume this size the pain somewhat abated. Along with a medical friend I aspirated the tumour, and the glass was immediately filled with a reddish-brown liquid; but further proceedings were prevented by an accident to the aspirator. Another operation was rendered unnecessary for two or three days after this. Diarrhœa came on of a greenish-black viscid matter, exactly resembling, excepting that its viscidity was greater, that drawn off by the aspirator. The chamber utensil was filled more than once with this matter; the tumour completely and almost simultaneously disappeared, the pain likewise; and an uninterrupted progress towards recovery took place. He soon afterwards was able to go to the seaside, and returned in perfect health.

The after-history is the most encouraging part of the case. Eight years have passed, and A. H—— is living in this town in perfect health. About four years since he had a slight attack of the same kind of pain, which yielded to the injection of morphia as before, and only troubled him for two or three days. No appearance of tumour or other consequence followed, and since then he has never suffered from any symptoms of the kind.

I am, Sir, yours truly,

JAMES MENZIES, M.D., L.R.C.S.Ed.

Galashiels, N.B., July 19th, 1883.

## SURGEON-DENTISTS AND DENTAL SURGEONS.

*To the Editor of* THE LANCET.

SIR,—I trust you will permit me, through the medium of THE LANCET, to call attention to a growing evil. It is one of such a nature that if not nipped in the bud, it will act disastrously in the future towards the interests of the younger members of our profession. I allude to the practice amongst so-called "surgeon-dentists" of acting in all respects as if they were registered medical practitioners. To quote one instance of many which have come under my notice. A patient of mine, Miss ——, consulted a dentist for toothache. He informed her that her toothache was attributable to derangement of the liver, and that he would come and see her at her home. Her father objected to this procedure, which, however, did not debar him from sending two bottles of medicine. This is not an isolated case, and I am disposed to think that it is not an idiosyncrasy of London dentists. I am aware that such acts of prescribing are an infringement of the Apothecaries Act; but who is to prosecute? General practitioners cannot unless they desire to expose themselves to obloquy and ridicule. In these days of counter-prescribing chemists, provident dispensaries, grossly abused out-patient departments of hospitals, and an ever-encroaching army of consultants, if to all these we add prescribing dentists, the day is not far distant when the general practitioner will be squeezed out and obliterated.

I am, Sir, yours faithfully,

Clapton, July 29th, 1883. F. W. EAST, M.B.

*To the Editor of* THE LANCET.

SIR,—Now that there is an all but sure prospect of the passing of the Medical Act Amendment Bill, is it not a stern necessity that once for all a stop should be put to the improper use of the word "surgeon" in conjunction with that of dentist, to be seen at every street corner, as used by men keeping druggists' shops, &c.? There may, perhaps, be some excuse for those men using it who, to obtain a dental licence, have undertaken a full curriculum of study; but as a member of my college I do most emphatically protest against the assumption of this title by the hundreds of men who claim (on the mere grounds of having gone to Dublin or elsewhere, and by the payment of £10 10*s.* and the passing of a modified examination "sine curriculo") the right to place surgeon-dentist or dental surgeon upon their door-plates, window blinds, &c. But even supposing these to have some honorary or legal claim to this hard-earned title, the thousands of other men who have not done even this can have no possible right to prostitute this qualification by making use of it in any shape or way. The leaders of dentistry, whilst professing to do all they can to place this, their profession, on a solid and honourable footing, ought now to take this opportunity of separating the chaff from the wheat; whilst, once for all, we as a fraternity have now the chance of protecting ourselves from the improper assumption of our rights and titles by men who can have as little right to their use as knowledge of the duties and obligations such titles demand at our hands. If as a profession we have reason to be proud that the Queen has seen fit to bestow the honour of knighthood on an eminent Fellow of the College, who whilst making dentistry his specialty ranks high in other branches of his profession, we cannot but deplore the fact that "erstwhile" mechanics, policemen, factory operatives, and hairdressers use the title of surgeon, whilst to my personal knowledge many chemists claim to use it whose only title to do so is that, on the strength of their extracting teeth at 3*d.* each, on the passing of the Dental Act in 1878 they, by payment of £2 2*s.*, obtained registration as dentists, and along with it the purchase of a before undreamed of dignity.

I am, Sir, yours &c.

August, 1883. SURGEON.

## THE VALUE OF ETHER IN COLLAPSE.

*To the Editor of* THE LANCET.

SIR,—Having read in your last issue the report of a case in which ether, subcutaneously injected, proved of the utmost value, I should like to record a case which occurred in the obstetric practice of this hospital. A few weeks ago I was sent for to a case of very severe post-partum hæmorrhage. The house was luckily situated almost opposite the hospital. I found the patient in a most critical condition; she was insensible and pulseless. The friends stated that before unconsciousness supervened she had been violently convulsed. Her face was of a ghastly hue and covered with a clammy sweat; the extremities were cold; in fact, I believed at first that she was dead. But over the heart could be felt a feeble flutter. The condition of the patient made it evident that if any restorative could be of any service it must be given at once. I therefore injected subcutaneously a syringeful of ether (thirty minims), which I had fortunately ordered to be sent across when I left the hospital. It acted like a charm, for in two or three minutes the heart rallied sufficiently to receive benefit from an enema of brandy and strong

beef-tea, which was then administered, together with hot bottles to the feet. In about fifteen minutes consciousness returned, and the patient was able to take some more brandy and beef-tea by the mouth. From that time she slowly gained strength. The amount of blood this woman lost was enormous, but could not be accurately determined because it had deluged the bed. The bleeding had fortunately ceased before my arrival. As she was *in extremis*, I think one may fairly state that ether saved this woman's life.

I am, Sir, yours faithfully,

F. FOORD CAIGER, M.R.C.S., L.R.C.P.

St. Thomas's Hospital, August 22nd, 1883.

## "A MISTAKEN DIAGNOSIS."

*To the Editor of* THE LANCET.

SIR,—Your information with regard to this case is very incorrect, and in justice to myself I must beg you to publish in your next number the following facts:—I never stated that the case was one of poisoning by salicylate of soda. What I did state in my report to the Procurator Fiscal was "that his death had been caused in all probability by some noxious substance, apparently of the narcotico-acrid class of poisons," nor did I state that the powders consisted "wholly of salicylate of soda." I shall probably publish the whole case when I have leisure, so that my professional brethren may judge fairly of it. I am, Sir, yours truly,

Aug. 18th, 1883. F. OGSTON, Jun., M.D.

*** We publish the above letter, and defer further comment until the appearance of Dr. Ogston's pamphlet.—ED. L.

## NEWCASTLE-ON-TYNE.

(*From our own Correspondent.*)

### SMALL-POX IN SUNDERLAND.

THE medical officer of health, Mr. A. E. Harris, has lately issued a courteous circular letter to the profession in the borough stating that as seventeen cases of small-pox had come under his own observation of late, and fearing the disease might assume an epidemic form, he appealed to the individual practitioners to supply him with that information as to the existence of the disease which he states they have ever been ready to grant when serious disease threatened the town. There can be no doubt but he will receive a ready response to his inquiry, as apart from the importance of the information he solicits, Mr. A. E. Harris is one of our most popular and painstaking health officers in the North.

### A HOSPITAL FOR BLYTH.

A bequest for the maintenance of a hospital at Blyth was some time ago made by Mrs. Knight, late of Crofton, near Blyth. By her will she directs that the sum of £6000 is to be paid to the trustees—Dr. Ward, of Blyth, and others—to be by them invested, and the income thereof to be accumulated for the maintenance and support of the sick and lame poor of the district; but she directs that no part of her bequest is to be applied to the erection of a hospital. This difficulty has, however, been got over, for a site has been granted for the hospital in Blyth by Sir M. W. Ridley, Bart., M.P.; he has also given a handsome donation, and with the gifts of others sufficient funds are in hand to proceed with the immediate erection of the hospital, which cannot fail to become a great blessing to the town and neighbourhood, as Blyth is almost the centre of the Northern Ocean coal mining district. The plans show arrangements on the ground floor for dispensary, waiting, consulting, examination rooms, and accident ward, with rooms for keeper, &c., while the upper storey will consist of two large wards, with bath, lavatories, and other house accommodation.

### THE NEW LIDDELL PROVIDENT DISPENSARY, JARROW.

On Saturday last, the foundation stone of the Liddell Provident Dispensary was laid at Jarrow by Mr. C. M. Palmer, M.P. The building is to be erected as a memorial to the Rev. Canon Liddell, cousin of the Earl of Ravensworth, who was for some years rector, and lately resigned through failing health. The building will be stone-fronted, comprising two storeys, and will contain every convenience for carrying on dispensary work on a large scale.

### MESSRS. ATKINSON AND PHILIPSON'S NEW AMBULANCE.

During the late training here of the Northumberland Hussars, Dr. Heath, the surgeon-major of the regiment, tested a new ambulance waggon constructed for the Newcastle Fever and Small-pox Hospital by Messrs. Atkinson and Philipson of this city. The ambulance, which has been built under the superintendence of Mr. H. E. Armstrong, our medical officer of health, had the approval of all the medical men who have seen it. The appearance of the vehicle is light and fresh, and it has none of that funereal dulness that marks most invalid carriages. The driver's seat is covered in, and there is a seat at the side which may be used as an attendant's. The entrance to the ambulance is obtained through folding doors at the rear, where there is a broad step. On the floor of the vehicle is a grooved tramway made to fit the wheels of one of Mr. William Philipson's patent stretcher couches. This couch is on indiarubber wheels, so that the patient may be easily transported to the ambulance, and it is specially adapted for going up and down stairs. The invalid may be carried in a sitting, reclining, or recumbent position. The material forming the mattress is of galvanised iron. The principle of the couch is quite unique in its way, and much ingenuity has been displayed in its construction. Above this couch is a canvas stretcher on parallel poles suspended from the roof on rubber cushioned hooks. This stretcher has been made in such a way that if the patient is too ill to bear being lifted about it can be placed on the bed and the poles drawn away without disturbing him. It will thus be seen that the patients can be carried at full length, and in addition there is full sitting accommodation for two persons, say two patients, and two attendants. The interior is well ventilated, and a sufficient amount of light passes through embossed glass windows. The vehicle runs with great smoothness. The springs are elastic, and patent indiarubber collars are fitted to the valves to prevent shocks and vibrations.

Newcastle-on-Tyne, Aug. 22nd, 1883.

## SCOTTISH NOTES.

(*From our own Correspondent.*)

### DUNDEE ROYAL LUNATIC ASYLUM.

A SPECIAL meeting of the directors of this institution was held a few days ago for the purpose of considering the present embarrassed state of the finances of the Board. From the statement made it appears that a debt of £50,000 was secured over the properties of the old asylum, and that, in addition, there were floating debts unsecured of fully £10,000. The Provost explained the two modes which had been suggested for meeting the difficulty. The first was to promote a land company for the purpose of utilising the properties of the old asylum, and thereby reducing the debt; while the second was to appeal to the generosity of the public to provide funds for paying off the floating debt, and thereby leave the asylum, with only its secured debt, to work out in a gradual way ultimate relief. After a good deal of conversation and discussion, the meeting unanimously approved of an appeal being made to the public.

### STONEHAVEN AS A HEALTH RESORT.

For a long series of years this important fishing centre, near Aberdeen, has been frequented by invalids and others in considerable numbers during the summer months. A large portion of the town is beautifully situated on high ground, commands a fine sea view, and the houses are so scattered as to admit the freest circulation of air. Nature has indeed bestowed her favours liberally here, but hitherto there has, as is too often the case in seaside resorts in Scotland, been a decided want in local effort to make the town attractive to those who sought health in recreation and in bathing. Some recent improvements have been so much appreciated that the whole district has now been stirred, and the result is a most successful bazaar which was held last week, at which Professor McKendrick of Glasgow gave valuable assistance. The proceeds will be devoted to the formation of a lawn tennis ground, bowling green, skating pond, better accesses to the beach, and generally in making

the town more attractive to visitors. It seems, however, a mistake that Stonehaven has never adopted the Lindsay Act, as any town which desires to thrive as a watering place must first of all set itself in order as regards drainage and water-supply; and this cannot be effectually done in Scotland except by commissioners under the Act of 1862. For a few months in summer there is no more delightful spot than Stonehaven; its air is invigorating, the bathing facilities fair and improving, the cliff scenery a perpetual charm, some ancient ruins, the most picturesque in Scotland, and many walks in the vicinity very charming. If the people of the place, and the proprietors in the neighbourhood, continue their present enterprise, the public and the profession will not be slow to avail themselves of the advantages offered.

### COTTAGE HOSPITALS IN SCOTLAND.

The movement in favour of cottage hospitals seems now to have taken root in Scotland, and in various towns and villages throughout the country the present year has seen considerable activity and success in their provision. It may be hoped that the agitation will spread till these useful institutions are found in most of our populous districts, and the need which undoubtedly exists for further hospital accommodation in Scotland will be much better met in this manner than by the enlargement of central yet remote infirmaries in our principal towns. Many of our counties, I should say about a third, have no hospital accommodation whatever for ordinary medical or surgical cases; and any practitioner in these wide and often poor districts could testify to the difficulties he has met with in having justice done to his cases. Poverty, remoteness of residence, ignorance as to nursing, and frequent friendlessness on the part of patients have demonstrated unmistakably the advisability of rearing cottage hospitals as a network over the country; and the advantage to the profession of watching cases as they can only be seen in hospital need not be overlooked. It would be well, then, that members of the profession should appeal to the generosity of their wealthier patients to follow the example of the people at Dunoon and Hawick, who have during the past fortnight shown how popular is the recognition of the want here indicated. In these comparatively small communities well nigh £3000 have been raised by the now fashionable method of bazaars or fancy fairs. At Hawick the Countess of Dalkeith made a very happy speech, and her closing appeal may be quoted as an incentive to work in other districts. "Let us hope this old English 'Fayre' will be remembered as having become the solid foundation of a valuable and much-needed institution, conferring lasting benefit on this town and neighbourhood. Let all do their best to further the undertaking, remembering that 'the quality of mercy is not strained; it droppeth as the gentle rain from heaven upon the place beneath. It is twice blessed; it blesseth him that gives and him that takes.'" The result of her ladyship's appeal was the most successful bazaar ever held in Hawick.

James Bruce, Esq., of Castledykes, M.D. of Glasgow University, has received a commission appointing him a sheriff-substitute of Dumfries and Galloway. Dr. Bruce took the usual oath last week.

## IRELAND.

*(From our own Correspondent.)*

MR. THOMAS COLLINS has been re-elected representative of the Apothecaries' Hall of Ireland on the General Medical Council for the ensuing year.

### QUEEN'S COLLEGE, BELFAST.

During the past session 533 students were enrolled in the various faculties, which include 300 in that of medicine. This latter faculty would have had a larger number of students entered were it not for a recent rule of the Royal University of Ireland, that all candidates for degrees in medicine shall be required, before being enrolled as medical students, to pass the first examination in arts. This examination had to be passed in Dublin, but by a recent resolution of the Senate various local centres have been selected, at which the candidates for this examination, so far as the written questions are concerned, can be examined. The President believes that the Royal University should follow the example in this respect of the University of London, by which examinations are appointed from time to time upon the application of any city, institution, or college, desiring to be named as a local centre for one or more examinations, and which are carried on simultaneously with the examinations in London, under the supervision of sub-examiners appointed by the Senate. The Council of the College at the commencement of the session resolved to admit women to art classes, and twelve young ladies were on application enrolled as students, ten of whom had previously matriculated in the Royal University. This is the first instance in which women have been admitted as students to a university college in Ireland, and so far the experiment has proved most satisfactory. In former reports the President drew attention to the necessity for increased accommodation in the college buildings, especially in the departments of chemistry, anatomy, and histology. Nothing, however, has yet been done. Plans and specifications for the requisite enlargements have been prepared by the architect of the Board of Public Works; but although the necessity is admitted, and the loss to the students is acknowledged, the comparatively small sum applied for has not been granted. During the past session the want of accommodation was even more keenly felt than in any previous year, owing chiefly to the anxiety of students to enter the classes of practical chemistry and histology, in order to qualify for degrees in the Royal University. The Professor of Chemistry was unable to admit all who applied to him, and very serious loss to the students and to the college was thereby entailed. The President ventures to express the earnest hope that, as the college has hitherto been so very successful, and as it has done, and is doing, such an important educational work in the North of Ireland, its teaching power may no longer be crippled by delay in providing that additional accommodation which was guaranteed to it by the Act of Parliament under which it was founded.

### PRECAUTIONS AGAINST CHOLERA.

Among the various seaport towns whose authorities are taking active precautions against an outbreak of cholera, that of Belfast should not be omitted. By the present regulations any cases of cholera arriving in foreign vessels do not approach the town nearer than the Twin Islands, where the hospital for cholera patients, erected some eleven years since, still exists. A committee of the guardians, in consequence of a recent communication from the Local Government Board, had an interview with the collector of customs a couple of weeks since, to ascertain what precautions should be taken in respect to the anchorage of suspected ships. It has been arranged that the pilots in the service of the Harbour Commissioners shall have the yellow flag hoisted on any vessel suspected of having cholera cases on board. These ships, if drawing more than twelve feet of water, will anchor in the Folly Roads, but if less than that will be allowed to come about a mile nearer. The pilots will then inform the Custom House officers at the Boarding Station, who will communicate with the medical officer that the vessels are waiting to be inspected by him. If a visit is not paid by the medical officer within twelve hours from the time the vessel is communicated with, she may proceed into the port; but if on examination by him any case of cholera is found on board, it will be sent at once to the Intercepting Hospital on the Twin Islands, and the vessel kept for forty-eight hours in the roadstead, where it will be disinfected. If cholera patients are found on board whose removal to hospital would be dangerous, the medical officer attends the cases until he gives a certificate that the disease has disappeared and the vessel is cleansed. The hospital will contain twenty beds, and will include apartments for the medical attendant and nurses, a surgery, a kitchen, and all necessary appliances for the proper treatment of all cholera cases.

### THE MALODOROUS LIFFEY.

The effluvia from the River Liffey have lately been very unpleasant, and the Public Health Committee of the Corporation propose to abate the nuisance by the temporary use of disinfectants. It was lately suggested that an embankment on each side to cover the exposed foreshore should be constructed. For this purpose a dwarf wall should be erected, behind which the cavity could be filled with gravel and sand or brick rubbish, the whole to be covered by concrete so as to form an inclined plane towards the centre of

the river. The cost of this, it is estimated, should not exceed £1 per cubic yard, and, if extended on each side for 500 yards, will be £6000.

ARMAGH LUNATIC ASYLUM.

Additions and alterations have recently been made at this asylum so as to permit accommodation for 110 additional inmates. A water-supply of an improved kind is nearly completed, and will consist of a water tower containing a cistern capable of holding 12,000 gallons. The cost of these alterations has been fixed at £25,000.

A HAIRLESS HORSE.

There is at present in Dublin a horse which does not possess a particle of hair. It is three years old, and, it is said, was born with hair, which afterwards fell off. The case is singular but not unique.

The returns of pauperism for the June quarter, when compared with those for the corresponding quarter of last year, show a decrease of 165 in the average number of workhouse inmates on Saturdays during the quarter, and an increase of 3726 in the number of persons on outdoor relief.

## MEDICAL NOTES IN PARLIAMENT.

In the House of Lords on Friday, the 17th inst., the Cruelty to Animals Acts Amendment Bill was thrown out, the votes being—for 17, against 30.

On Tuesday, the motion for the second reading of the Local Government Board (Scotland) Bill was rejected by a majority of fifteen.

In the House of Commons on Friday, August 17th, a return was presented of the number of Chancery lunatics during each of the last ten years.

A return was presented of coroners and their salaries, also a return of reports by metropolitan medical officers of places requiring to be dealt with under the Artisans' Dwellings Acts.

The Trial of Lunatics Bill (Lords) was read a third time and passed.

*The Army Medical Department.*

In Committee of Supply, a discussion was raised on the Army Medical Vote.—Sir H. Fletcher contended that the present system of army medical officers was not so satisfactory as the old regimental system. He referred at some length to the report of Lord Morley's committee as to the medical arrangements during the Egyptian campaign, and asked what action the Government proposed to take with regard to the recommendations of that committee.—Lord Hartington, in reply, said that during the recess it was proposed to go through these recommendations, and to consider to what extent they could be adopted. Until the Government brought forward their proposals he thought a discussion on the report of the committee should be postponed.—Dr. Lyons thought that more use should be made of female nurses He complained that the sons of army medical officers were not eligible for Queen's cadetships.—Lord Hartington said that there was no intention of casting any stigma on the medical officers, but the object was that the sons of combatant officers should be trained to the same profession as their fathers. The same reasons should not hold good in the case of the sons of medical officers.

In Committee of the whole House, a formal resolution was passed, authorising the payment out of public money of the cost of the certificate of death of any medical practitioner, under the Medical Acts Amendment Bill, should it become law.

The Royal assent was given to the Diseases Prevention (Metropolis) Act.

*The Calamity at Southall.*

Mr. Hibbert stated to Mr. Freshfield that the Home Secretary had no power to lay down conditions in respect to the granting of licences for private lunatic asylums; but the Lunacy Commissioners assured him that their constant attention was directed to the prevention of fire in asylums.

*Inoculation by Vaccination.*

Mr. Hopwood asked whether the Scientific Committee to whom was referred the case of Dr. Cory and his inoculation of himself with syphilis in the course of vaccination had completed their examination; whether the fact that syphilis could be and was inoculated by vaccination was not well known previously; and if any report had been made, would he lay it upon the table of the House.—Mr. G. Russell: The committee to which was referred the case of Dr. Cory have completed their examination. It is the fact that an operation professing to be vaccination can be the means of conveying syphilis, and this fact was, principally from some foreign experiences, well known before Dr. Cory's experiment. It is not the fact, in general terms, that syphilis is inoculated by vaccination. Dr. Cory's experiment had for its object a better understanding of the conditions under which any such conveyance was possible. The report of the committee has been made, and will appear in the annual report of the medical officer of the Board, which is presented to Parliament. That report is now in preparation.

*Drainage Certificates.*

Mr. G. Russell, in reply to Mr. Anderson, said the Local Government Board did not think it desirable that sanitary authorities should grant drainage certificates for the satisfaction of private individuals. If, however, a local authority were to propose that the medical officer of health and the inspector of nuisances should jointly give such certificates as proposed, on payment of a reasonable fee, the Board would not object to such an arrangement, by way of experiment, provided the duties of the officers were not thereby interfered with.

*Army and India Medical Officers.*

Mr. Acland asked the Secretary of State for War what was the reason of the distinction between candidates for commissions in Her Majesty's Army Medical Department and candidates for commissions in Her Majesty's India Medical Service with regard to the marks gained by them at Netley, which in the case of the candidates for the India Medical Service were counted, and in that of the candidates for the Army Medical Department were not counted, in the totals which determine in each case respectively their order of merit; and whether it was intended to maintain that distinction.—The Marquis of Hartington: The examination at the conclusion of the Netley course is, in the case of army medical candidates, a pass examination merely, their relative precedence having been settled at the entrance examination. With the Indian candidates, on the contrary, the Netley course is competitive and aids in determining the position during subsequent service. The system for the British officers was deliberately adopted, after very full inquiry, by a Committee appointed to consider the causes of the unsatisfactory supply of candidates for the Army Medical Service, which took evidence on this particular point.

*Queen's Cadetships.*

Dr. Lyons gave notice that next session he would call attention to the subject of Queen's cadetships, and the disabilities in regard to them imposed on the sons of medical officers in the public service of the country; and to move a resolution.

*Abandonment of the Medical Bill.*

In reply to questions by Dr. Lyons and one or two other members as to the possibility of carrying the measure at this late period of the session, Mr. Gladstone announced the abandonment of the Bill.

*The Smoke Nuisance Act.*

Mr. Cubitt gave notice that next session he would move for a select committee to consider whether the Smoke Nuisance Acts are applicable to the present state and area of the metropolis, and whether alteration and extension of this legislation would be beneficial.

On Thursday, the Public Health (Dairies) Bill was withdrawn.

*Vaccination.*

Mr. Hopwood asked the President of the Local Government Board if he would inquire into the case of Emily Agnes Henning, of 273, Mayall-road, Herne-hill, aged four months, who was vaccinated on July 25th, and who within three days was attacked with symptoms of blood-poisoning, and died on Aug. 15th.—Mr. G. Russell said this child was vaccinated by a private practitioner, and not by the public vaccinator. The vaccination ran its usual course, and was regarded as satisfactory. One of the vesicles, however, became broken

through the rubbing of a piece of muslin, and an eruption of the nature of erysipelas appeared on the arm on the ninth day after vaccination. That subsequently spread, and the child died three weeks after the operation. Having regard to the history of the case, there was no doubt that death resulted from the absorption of some septic matter from the surface of the vesicle, and not from the vaccination itself. The Board therefore saw no reason for further inquiry into the matter.

*Sewer Ventilators.*

Mr. J. Talbot asked the Secretary of State for the Home Department whether he would draw the attention of the local authorities of the metropolis to the necessity of attending carefully to the sewer ventilators in the streets, with a view to prevent, as far as possible, the exhalations frequently issuing therefrom; and whether his attention had been called to a plan which had been tried with apparent success in the town of Ryde, under high engineering sanction, for rendering the ventilation of the sewers inoffensive and yet effective.—Sir W. Harcourt said neither the Home Secretary nor the Local Government Board had any authority in this matter. The sewers were vested in the Commissioners of Sewers for the City, the Metropolitan Board of Works, and the Vestries and District Boards of the metropolis.—Sir C. Dilke said, with regard to the second part of the question, that the Local Government Board were aware of the Ryde experiment, and had been informed that the Town Council did not approve of the scheme, which was the invention of the Mayor or Ryde, who was not a scientific authority. The chief sanitary authority to the Local Government Board was consulted, and he stated that there was no system of ventilation equal to the existing one of open gratings.

*The Cholera.*

Lord E. Fitzmaurice, in reply to Mr. Grant, said the attention of Dr. Hunter had been called to the desirability of including in his report some elements of scientific investigation. France and Germany were taking measures to obtain scientific knowledge as to the special conditions of the outbreak in Egypt.

*Irish Police Surgeoncies.*

Mr. Healy put a long series of questions referring to recent appointments of police surgeons in Ireland, and Mr. Trevelyan promised to make inquiries into the facts.

# Obituary.

## ROBERT BOYD, M.D. EDIN., F.R.C.P. LOND., M.R.C.S., &c.

IN our last number we briefly described the terrible calamity at Southall-park, the details of which have perhaps excited more public interest than any other occurrence of the week. As our readers are aware, Dr. Boyd, his son, Mr. W. B. Boyd, and three other persons perished in the fire which destroyed Southall-park Asylum on the morning of Tuesday, the 14th. At such a time it is difficult to speak calmly of one who was not only respected by the public and his patients, but who was, moreover, an intimate personal friend to so many in the medical profession. When we look back upon the life and labours of Dr. Boyd, the first thing which strikes us is the enormous quantity of work he must have got through in his lifetime. In whatever position he found himself, whether as medical officer to the sane patients of a workhouse infirmary, or as physician to the lunatic inmates of a county asylum, he always utilised to the utmost the opportunities afforded by his position for original research. Indeed, one of Dr. Boyd's chief hobbies, if we may use the word in reference to a subject of so much importance, was that the workhouse infirmaries ought to be more extensively visited by students and junior qualified medical men. In his presidential address in 1870 he reminded his hearers that Mr. G. Hardy's Metropolitan Poor-law Bill recognised the admission of pupils to these establishments, where all cases of disease were admitted without the selection usual in hospitals. He there remarked: "A student will therefore have an opportunity of observing cases as they are met with in private practice, and from the mortality resulting from the great number of aged and infirm persons in such institutions, he will have an excellent opportunity of acquiring a knowledge of morbid anatomy. The wards set apart for lunatics would also be most useful, as in some degree supplying a deficiency in medical education—namely, the study of insanity, a knowledge of which is so essential in practice, amongst the poor especially." That Dr. Boyd availed himself of the advantages offered for practice and pathology in the wards of such an establishment is amply proved by the valuable papers which he from time to time communicated to the *Journal of Mental Science*. In 1873, moved by a contribution of Dr. Clouston to that publication, on "Tumours of the Brain," Dr. Boyd produced a paper on this same subject, which commenced with the statement that during his residence in the St. Marylebone Infirmary, in three years and a half, there were not less than 1039 post-mortem examinations, in 22 of which tumours of the brain were found. Of these 22, 19, or about 18 per 1000, were patients in whom no mental derangement was observed. At the Somerset County Asylum, in 875 post-mortem examinations there were 14 cases of tumours of the brain, or 16 per 1000. The natural deduction from these nearly equal percentages is that the brain is an organ capable of undergoing great pressure and displacement, if such agencies are only gradually applied, without any marked alteration in its functions. This corresponds with all our previous knowledge of physiology, as an example of which may be mentioned the very trifling inconvenience to which some of the animals appear to have been subjected when large portions of the brain had been removed in the experiments of Dr. Ferrier and other investigators.

Dr. Boyd's researches concerning that most fatal disorder, general paralysis of the insane, are full of the deepest interest to the pathologist. In the *Journal of Mental Science* for May, 1871, and October, 1871, a detailed account of his labours in this field of study is to be found. Out of 924 deaths in the Somerset County Asylum, 162, or nearly 18 per cent., had this disease, and the proportion of males to females was just 4 to 1. In 155 of these cases post-mortem examinations were made, 124 being males and 31 females. In each of these cases not only the brain and other organs were examined, but the condition of the spinal cord, both as to the naked eye and microscopical appearances, was also ascertained. The labour of this investigation must have been enormous, and by these researches the fact that general paralysis was as much a disease of the nervous system generally as of the brain especially was fully established. Increase or decrease of the weight of the cord, effusions of blood in the spinal canal, congestion in the vessels of the cord, fluid in the canal, softening or hardening of the cord itself, corpuscles found by microscopical examination, white specks on the spinal arachnoid, and other post-mortem appearances exactly corresponding to those pathological changes in the brain with which all psychologists were previously familiar, all such phenomena proved unmistakably the ubiquitous nature of this disorder, at least as regards the nervous system.

Dr. Boyd's forte was decidedly pathological research. But he was also a practical man in the treatment of mental and nervous disorders, as his remarks on general paralysis fully testify. Dr. Blandford's valuable Index to the Journal of Mental Science, reports that Dr. Boyd contributed not less than sixteen important papers to that periodical. Those above mentioned are the gems of the collection, but his other smaller contributions bear the stamp of patient energy and original research. These are the "Care and Treatment of the Insane Poor," "Cases of a Thousand Female Patients," "Causes of Death in Chronic Insanity," "Results of Two Thousand Cases at the Somerset Asylum," "Puerperal Insanity," and "Statistics of Pauper Insanity." To other publications he supplied papers on the "Weight of the Brain at Different Ages and in various Diseases," "Tables of the Weights of the Human Body and Internal Organs," "Vital Statistics," "On Insanity," "On the Pauper Lunacy Laws" (these three last to THE LANCET), and many other subjects. Dr. Boyd was not only well known amongst his fellow workers in psychology, but was also beloved and respected by the profession at large and the public. He leaves one son (a member of the medical profession) and four daughters to mourn their irreparable loss.

We cannot conclude this short notice of Dr. Boyd's life

and labours without expressing a hope that some memorial may be raised to perpetuate his memory. It must be remembered that Dr. Boyd met his death through a sense of duty, which compelled him to return to seek for his unfortunate patients when he might easily have escaped from the burning asylum. Such heroic self-sacrifice is extremely rare, both in civil and military life, and it is fitting that such an act should not go unrecorded.

## JAMES ARROTT, M.D., L.R.C.S. ED,
### DUNDEE.

THE last of the Arrotts, who have for two generations held an important place in our profession in the east of Scotland, has now been removed in the person of Dr. James Arrott, which took place on the 13th inst. The deceased gentleman had for about two years felt the stroke of old age, and had left the scene of his long activity for a quiet life in the home of a medical friend in the country. Dr. Arrott was born in Arbroath, in February, 1807; his father was a graduate of Edinburgh, who long practised in that town, and was succeeded by Dr. David Arrott, who died only a few years ago. The family is of very old standing, and of good repute in the profession; but, perhaps, the widest interest will be evoked from the fact that the late Professor Sharpey was a half-brother of David and James Arrott. They now lie in the same old abbey burial-ground at Arbroath, the round O of which never failed to awaken the most tender recollections in the minds alike of all the brothers. It was always a delight to the eminent physiologist to visit the scenes of his boyhood, and latterly his most cherished hours were spent there, or at the country house of his sister in the near neighbourhood. After receiving a good training in the academy of his native town, James Arrott proceeded to Edinburgh, where he took his licence in 1827 and his degree two years later. He was at one time assistant to Dr. Knox, the celebrated anatomist, and we are not sure if he was not occasionally the unwitting agent through whom the victims of Burke and Hare were passed into the dissecting room. It is worthy of mention that Dr. Arrott, himself the soul of humour, had a life-long regard for the memory of Dr. Knox, against whose name many reproaches have been cast. Dr. Arrott completed his studies in Holland, Belgium, and Paris, and commenced practice in Dundee in 1831. During the first few years he devoted much of his time to literary pursuits, gave a course of lectures on the structure and functions of animals, which gained for him a life-membership in the Watt Institution, and entered actively into the discussion of local affairs. He was fortunate in being early appointed Physician to the Dundee Infirmary, but in 1835 the duties were not severe. A few years afterwards a movement for the building and equipment of the present Royal Infirmary began, and then Dr. Arrott came to the front as an enthusiastic worker, a thoroughly practical man, and with strong convictions, then rather rare, regarding the importance of efficient sanitary arrangements. In professional literature his name does not occur frequently, but for half a century he conducted a large practice with immense advantage to his patients, and frequently with expense rather than gain to himself. In later years he was much engaged as a consulting physician. Throughout life he manifested a decided interest in all social movements of promise, served on the committee of the Free Library, was twice elected a member of the School Board, and was so useful in various capacities that in 1877 he was presented with his portrait in oil, and with other substantial evidences of public esteem. And well he deserved them; he was the constant friend of the poor, was never known to send an account, and generally was of the most unselfish, disinterested, and honourable type of character. He was unmarried.

A ROMAN MORGUE.—The municipality of Rome have decided to establish, upon the model of the well-known establishment in Paris, a morgue or dead-house for the reception of bodies of persons found dead in public places, in order that they may be identified. The building is already constructed, and will shortly be opened. As at the Paris morgue, the interior is divided in the centre by a long glass framework reaching from floor to ceiling, behind which the bodies will be placed upon sloping ironwork frames.

# Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen passed the Primary Examination for the licence (Chemistry, Materia Medica, &c.) on Aug. 10th:—

A. L. Achard, G. F. Aldous, L. M. Anderson, T. M. Angior, S. H. Appleford, E. R. B. Archer, F. G. Armson, J. F. Aspinwall, W. W. Banham, J. C. Barker, W. P. Barrett, G. A. Barton, J. F. Bate, J. E. A. Becker, J. C. Bell, G. D. Belson, F. H. Bence, H. T. Benson, G. Bent, H. Bidwell, P. C. C. Billups, J. Blacklock, W. L. Blight, G. M. Blunt, W. H. Boger, C. K. Bond, W. H. Booth, R. A. Bostock, E. J. Bower, C. Brown, O. P. Brown, E. Buckell, F. S. Bullen, H. J. Butler, W. H. C. Candler, W. V. Carden, A. R. Carver, J. T. Cheves, W. R. Clay, W. J. Colborne, W. H. Compton, J. N. Cook, C. B. Cooper, E. Cooper, S. E. Craddock, J. W. Crowther, J. Dacre, W. Daniell, C. J. Davenport, W. H. H. Davey, S. A. Davies, E. I. Day, G. E. Deacon, A. P. De Carvalho, S. L. Doeble, A. Delisle, P. J. Denyssen, W. L. Dickinson, C. Downing, H. W. Drew, P. H. Dunn, P. Edwards, F. G. Engelbach, J. M. Evans, O. C. P. Evans, C. F. Fenton, W. I. Fern, T. H. Fisher, G. B. Fox, H. A. Fotherby, A. G. R. Foulerton, T. W. Fowler, G. M. Fox, J. A. Fox, H. A. Francis, J. H. Fry, H. George, J. A. Gillett, J. Girvin, H. Goodall, T. H. Goodman, W. Goss, A. J. Gore, C. R. M. Green, F. W. Green, G. Greenwood, A. Grieves, W. A. Griffiths, M. S. W. Gunning, P. O. W. Hailey, C. S. Harper, J. D. J. Harris, A. H. Hart, F. Harvey, J. Harvey, G. E. Haslip, A. E. Hayward, W. H. Heffernan, E. C. L. Heidepriem, F. W. Hildyard, T. J. Hitchins, F. M. Holman, H. W. Hooper, C. J. Horner, N. R. Howse, E. A. Hughes, A. Jervis, F. W. Jolliye, E. F. Jones, G. Jones, G. C. Jones, G. M. Jones, I. H. Jones, J. A. Jones, J. O. Jones, F. Lane, S. S. Larcombe, T. G. Lasiett, S. C. Lawrence, H. Lawson, G. T. Lee, E. H. Lingwood, E. R. S. Lipscomb, H. Lockwood, J. W. F. Long, T. W. M. Longmore, W. A. Loxton, L. S. Luckham, C. A. Lumley, C. Lyddon, W. C. Macdonell, N. Macgillycuddy, F. R. Mallard, M. O. Manson, J. A. Marsden, A. D. Miller, M. C. Moxham, H. G. Nicholson, J. E. Nihill, J. H. Norton, A. H. Nott, G. H. Oliver, V. L. Oliver, A. Orchard, F. J. Orton, H. C. Otway, S. J. Palmer, C. A. Parker, A. C. E. Parr, W. F. Pedler, F. W. H. Penfold, S. C. Phillips, C. H. Pillmer, C. Pound, W. G. Pridmore, F. A. Pring, T. Pye, C. T. Quilter, H. V. Rake, J. M. Rees, C. C. Reilly, H. W. Rickards, W. Routh, G. H. Russell, R. Rygate, H. C. L. Scofield, A. L. Scott, G. S. Shute, H. C. Simmons, F. T. Simson, W. B. Slyman, E. Somerset, H. E. South, E. C. Stabb, C. R. Stedman, G. Stoker, G. F. Sydenham, G. H. W. Thomas, A. L. Travers, R. Trevor, H. Tuck, F. Tyndall, E. Vallance, A. H. Vernon, E. Volckman, A. P. Walters, C. J. West, J. Westwood, P. H. Whiston, F. H. Whitehead, H. W. Whyte, J. T. C. Williams, W. W. Williams, C. F. Williamson, J. S. Withers, E. H. Wright, F. M. Wright, W. L. Wyatt.

UNIVERSITY OF LONDON.—The following candidates have passed the recent Honours Examinations:—

ANATOMY.

FIRST CLASS.

Thane, Edgar Herbert (Exhibition and Gold Medal), University College.
Johnson, Raymond (Gold Medal), University College.
Washbourn, John Wychenford, Guy's Hospital.

SECOND CLASS.

Eq. { Goodall, Edward Wilberforce, Guy's Hospital.
Eq. { Hart-Smith, Franke Chamberlain, University College.
Wild, Robert Briggs, Owens College.
Gray, John Power William, King's College.
Halstead, George Ezra, B.A., B.Sc., Guy's Hospital.
Wills, William Alfred, Westminster Hospital.

THIRD CLASS.

Davenport, Arthur Frederick, University of Edinburgh and University College.
Jones, Sydney Harold, St. Thomas's Hospital.

MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

FIRST CLASS.

Johnson, Raymond (Exhibition and Gold Medal), University College.
*Thane, Edgar Herbert, University College.

Eq. { *Calvert, James, B.A., St. Bartholomew's Hospital.
Eq. { *Carless, Albert, King's College.
*Corbin, Eustace Rhodes St. Clair, University College.

Eq. { Finley, Frederick Gault, Owens and M'Gill Colleges.
Eq. { Gardner, Henry Willoughby, St. Bartholomew's Hospital.
Gow, William John, St. Bartholomew's Hospital.
Stevenson, George, St. Bartholomew's Hospital.

Eq. { Braddon, William Leonard, Guy's Hospital.
Eq. { Davenport, Arthur Fredk., Univ. of Edinburgh and Univ. Coll.
Wild, Robert Briggs, Owens College.
Wills, William Alfred, Westminster Hospital.

SECOND CLASS.

Eq. { Hichens, Frank, London Hospital.
Eq. { Leech, Priestley, Owens College.
Muspratt, Charles Drummond, Guy's Hospital.
Washbourn, John Wychenford, Guy's Hospital.
Childe, Letterstedt Frederick, Guy's Hospital.

THIRD CLASS.

Stedman, Frederick Osmund, Charing-cross Hospital.

Eq. { Barendt, Frank Hugh, Royal Infirmary School of Medicine and University College, Liverpool.
Eq. { Lever, Frederick, Guy's Hospital.

ORGANIC CHEMISTRY.

FIRST CLASS.

Washbourn, John Wychenford (Exhibition and Gold Medal), Guy's Hospital.

Eq. { †Hichens, Frank, London Hospital. / †Stevenson, George, St. Bartholomew's Hospital.

SECOND CLASS.

Halstead, George Ezra, Guy's Hospital.
Braddon, William Leonard, Guy's Hospital.

PHYSIOLOGY AND HISTOLOGY.

FIRST CLASS.

Wild, Robt. Briggs (Exhibition and Gold Medal), Owens College.
Thane, Edgar Herbert (Gold Medal), University College.

SECOND CLASS.

Bright, Eustace Frederick, University College.
Finley, Frederick Gault, Owens and M'Gill Colleges.
Braddon, William Leonard, Guy's Hospital.
Gow, William John, St. Bartholomew's Hospital.
Johnson, Raymond, University College.
Leech, Priestley, Owens College.

THIRD CLASS.

Lever, Frederick, Guy's Hospital.
O'Brien, Patrick Moriarty, Royal Infirmary School of Medicine and University College, Liverpool.
Edge, Frederick, Owens College.

* Obtained the number of marks qualifying for the Exhibition and Medal.
† Obtained the number of marks qualifying for a Medal.

BRITISH MEDICAL SERVICE.—The following is the list of the candidates for appointments as Surgeons in this Service who were successful at the competitive examination held in London on the 13th inst.:—

| | Marks. | | Marks. |
|---|---|---|---|
| Bradshaw, O. G. D. .. | 2410 | Henston, F. S. .. .. | 2100 |
| Kelly, M. .. .. .. | 2375 | Durant, R. J. A. .. | 2055 |
| Pinching, H. H. .. | 2355 | Gubbin, G. F. .. .. | 2030 |
| Geddes, R. J. .. .. | 2350 | Myles, J. P. .. .. | 1980 |
| Kelly, W. .. .. .. | 2185 | { Lesly, R. .. .. .. | 1975 |
| O'Connell, D. V. .. | 2170 | { Birch, H. P. .. .. | 1975 |
| Dodd, A. .. .. .. | 2140 | Braddell, M. O'D. .. | 1880 |
| Wilson, G. .. .. .. | 2121 | Donnett, J. J. C. .. | 1870 |
| { Reid, J. M. .. .. .. | 2105 | Sloggett, H. M. .. .. | 1845 |
| { Winter, T. B. .. .. | 2105 | Robinson, C. S. .. .. | 1755 |

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 16th:—

Harris, John Wm., Woodhaye, Ivybridge, South Devon.
Mountain, John Joseph, Hull.
Newton, Rupert Wm., The Square, Kenilworth.
Oram, Percy Sprague, Amhurst-road.
Penny, Edmund John, The Vicarage, Abbotsbury, Dorset.
Whitfield, John Neil, Moss-street, Heywood.

UNIVERSITY OF EDINBURGH.—In the list published last week of gentlemen who obtained the degrees of B.M. and M.S. at this University, the sign (‡) indicative of having passed with second-class honours should have been placed at the name of Percy John Baily.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The sixth name in the list published last week of gentlemen who obtained the licence of the Faculty should read "Suppayah Nannytamby."

DEATH FROM THE BITE OF A PIG.—The son of a pork-butcher in Birmingham, six weeks ago, was playing with a pig, when the animal bit him in the hand. The lad was treated at the hospital, and for a time the wound seemed to be progressing satisfactorily, but symptoms of blood-poisoning set in and the boy died.

DONATIONS TO HOSPITALS.—Mrs. Lovegrove, of Park-street, Grosvenor-square, London, has forwarded a cheque for £500 to the hospital at Weston-super-Mare, in which town she has a seaside residence.—The Duke of Devonshire has given a very large chiming clock to Buxton Hospital.

DEATH IN THE CRICKET FIELD.—During a cricket match at Yeadon, near Bradford, on Wednesday, Mr. Albert Dennison was accidentally killed. He was at the wickets, when a ball bowled to him struck him on the temple, and he fell back into the arms of the wicket-keeper dead. Deceased was a member of the Yeadon School Board.

A SOMEWHAT ludicrous scene is reported as having occurred at Birmingham in connexion with an inquest held on the body of an inmate of the borough gaol who died of small-pox. The jurors for some time appear to have absolutely refused to "view" the body, though enclosed in an air-tight coffin provided with a glass lid. Their reluctance, however, was eventually overcome by permission to smoke, drink, or resort to any other device for the purpose of securing themselves against infection.

# Medical Appointments.

*Intimations for this column must be sent* DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BRANNIGAN, JOHN HENDERSON, M.R.C.S., has been appointed Assistant Medical Officer to the Workhouse, Liverpool Parish.

BROWN, DAVID, L.K.Q.C.P.I., M.R.C.S., has been appointed Medical Officer for the Second District of the New Winchester Union.

BROWNE, THOMAS, L.F.P.S.Glas., has been appointed Government Medical Officer for the District of Campbelltown, New South Wales.

BURTON, WILLIAM HENRY, M.D., L.R.C.P.L., M.R.C.S., has been appointed Health Officer for Lowan Shire, C.R., Victoria.

EWART, JOSEPH, M.D., has been appointed Physician to the Royal Alexandra Hospital for Sick Children, Brighton.

FULTON, JOHN, M.D., L.F.P.S.Glas., has been appointed Honorary Physician to the Melbourne Hospital.

GOWANS, WM. BRUCE, M.B., C.M.Edin., has been appointed House-Surgeon to the County and City of Perth Infirmary.

GRIFFITHS, JAMES DE BURGH, M.B., C.M.Dub., has been appointed Assistant Medical Officer to the Melbourne Hospital.

HAYMAN, HENRY, F.R.C.S.Eng., L.S.A.Lond., has been reappointed Medical Officer of Health for the First District of the Wycombe Union.

KEMPE, JOHN ARTHUR, L.R.C.P.L., M.R.C.S., has been appointed Medical Officer for the North Pawson District of the Okehampton Union.

LEE, EDW. SAMUEL, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Barking Urban Sanitary District.

MACKEY, EDWARD, M.D., has been appointed Physician to the Royal Alexandra Hospital for Sick Children, Brighton.

SANSOM, CHARLES LANE, M.R.C.S., has been appointed Junior Resident Medical Officer to the Royal Free Hospital.

VINCENT, J. GEORGE, M.B. & C.M.Aber., M.R.C.S., has been appointed House-Surgeon to the Worksop Dispensary, vice Mr. Fielding, resigned.

WARREN, THOMAS, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Second District of the Wycombe Union.

# Births, Marriages, and Deaths.

## BIRTHS.

COX.—On the 12th inst., at The Limes, Cottenham, Cambs., the wife of C. Hayden Cox, L.K.Q.C.P.I., L.R.C.S.I., &c., of a daughter.

DUKE.—On the 14th inst., at Kennington-park-road, S.E., the wife of Maurice S. Duke, M.R.C.S., of a son.

FLETCHER.—On the 14th inst., at Soham House, Highgate, the wife of George Fletcher, M.A., M.D., of a daughter.

FLINT.—On the 14th inst., at Westgate-on-Sea, the wife of Arthur Flint, L.R.C.P.L., of a son.

HEPBURN.—On the 18th inst., at 3, Bridge-road, Hammersmith, W., the wife of John Hepburn, L.R.C.P., L.R.C.S., L.S.A.Lond., of a daughter.

HOCKIN.—On the 14th inst., at Southport, Queensland, the wife of G. Treverne Hockin, M.R.C.S., L.R.C.P., of a son.

TWEEDY.—On the 16th inst., at Gardiner's-row, Rutland-square, Dublin, the wife of H. C. Tweedy, M.D., of a daughter.

## MARRIAGES.

BRODIE—CALLENDER.—On the 15th inst., at Morningside Parish Church, Edinburgh, William Haig Brodie, M.B., C.M.Ed., eldest son of the late Lieutenant-Colonel Thomas Brodie, H.E.I.C.S., to Gilliam, eldest daughter of John A. Callender, Esq., of Newcastle-terrace, Edinburgh.

BURTONSHAW—NICHOLLS.—On the 18th inst., at All Saints' Church, Haggerston, Thomas Burtonshaw, M.R.C.S., of De Beauvoir-road, to Emily Louisa, second daughter of Thomas W. Nicholls, of Kingsland-road, N.

HINTON—CHERRY.—On the 15th inst., at Zion Chapel, Bedford, James Thomas Hinton, M.D., M.R.C.S., of High-street, Croydon, eldest son of J. T. Hinton, Esq., of Haling-park, Croydon, to Sarah, youngest daughter of Luke Cherry, Esq., Mayor of Bedford.

TRAPP—HARTE.—On the 16th inst., at the Parish Church of Blandford, Dorset, John Best Trapp, F.R.C.S., to Helen Maynard, daughter of the Rev. William Harte, late Rector of Blandford.

## DEATHS.

ATKINSON.—At West House, Wylam-upon-Tyne, John Ismay Atkinson, Surgeon, in his 68th year.

IRVINE.—On May 9th, at Nelson, New Zealand, Francis Wemyss Irvine, M.D., L.R.C.S.Ed.

MCDONALD.—On the 17th inst., at Horsham, Sussex, John Alexander McDonald, M.D., late of Woburn, Bedfordshire.

SMITH.—On the 17th inst., at Edinburgh, John Alexander Smith, M.D., Treasurer to the Royal College of Physicians, Edinburgh, Secretary to the Royal Society of Antiquaries of Scotland.

SPARKE.—On May 23rd, at Sydney, James Sparke, M.D. St. And., M.R.C.S., aged 55.

THOMSON.—On May 23rd, at South Yarra, Victoria, William Thomson, F.R.C.S.Ed., aged 63.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

# Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of* THE LANCET *to be addressed "To the Publisher."*

**THE STUDENTS' NUMBER OF THE LANCET** will be published on Saturday, September 8th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that number, are earnestly requested to send it *without the delay of a single post*. It will be esteemed as a favour if the needed alterations be made on the slip forwarded from this Office, so that risk of error may be avoided in the course of perusing bulky prospectuses.

## AMERICAN DEGREES.

*To the Editor of* THE LANCET.

SIR,—Your correspondent, "A British Practitioner resident in the States," appears to have an object in discrediting medical education in America. He is certainly in error when he says that "there is not a single institution in America that grants degrees equal to any diploma obtained from a British Corporation," for it is quite possible in Great Britain to obtain a licence to practise medicine without undergoing any examination whatever in surgery (and I know several holders of the L.S.A. and L.A.H. who not only practise surgery, but style themselves surgeons and M.D.'s), while in all the American colleges it is a *sine qua non* that every candidate shall pass satisfactorily in the seven subjects—anatomy, physiology, chemistry, materia medica and therapeutics, medicine, surgery, and midwifery. He instances several colleges and universities of undoubted standing and respectability, but he makes no reference to the largest and second oldest school in the city of New York—viz., the medical department of the university. It is true that there is no compulsory examination in general education at some of the schools, and that the minimum time required by the law to be spent in medical study is but three years, but he forgets, at the same time, to state that the average age of the American medical student is greater than that of the British, and that a very large number of them are men who have for years been teachers in schools, and who, by their own exertions as such, have saved the means wherewith to qualify themselves as physicians; hence there is not the same necessity for an examination in general knowledge. It is also an undoubted fact that the American medical student is, during his course of study, a much harder worker than the British, most of the colleges keeping their dissecting-rooms open till 10 o'clock at night, while the professor of each subject holds an examination of his class at least once a week. It is also compulsory on students to attend at least two full courses of lectures on each subject, and although their attendance is not registered, yet, as a matter of fact, based upon an experience of the medical schools of both countries, I am able to state that the lectures are much better attended than at any medical school at which I have been in London.

In conclusion, I might ask, "Is it a fact that the average British practitioner of either medicine or surgery is in advance of his American *confrère*?"—I am, Sir, yours, &c.,

AN AMERICAN GRADUATE AND BRITISH LICENTIATE IN MEDICINE.

P.S.—Your correspondent at the end of his letter says, somewhat cynically I think, "Furthermore, I am informed that the examiners are exclusively professors in these institutions, and the number of rejected candidates very small." With regard to the professors being the examiners he is right; but I would ask, "Who so likely to discover the deficiencies of a candidate as his teachers?" His informant, as to the paucity of rejections, is wide of the mark, for of those who were examined for the diploma of Columbia College in May, 1881, no fewer than 33 per cent. failed to satisfy the examiners. This I know from having been at the time a student of the College.

## THE NEW MEDICAL BILL.

*To the Editor of* THE LANCET.

SIR,—Having seen in to-day's *Standard* that Sir Lyon Playfair mentioned the Medical Act Amendment Bill in the House yesterday, I have been reminded of my intention of sending you the view I take of the Bill, which I have hesitated doing before in the hope that some better person would have the same idea I have and communicate with you. I believe the object of the Bill is not that of benefiting the people by protecting them against quacks, herbalists, patent medicines, and like evils, which commit such wholesale murder in our midst, but principally as a safeguard against the lax examination of students who have "gone through" a full curriculum.

There may be many things to be said in favour of this. For instance, of course it is not right that the evening lectures delivered in Dublin should be accepted as medical study. Surely, the four years in which a man is bound to pursue medical studies is but just sufficient time for him to obtain a fair knowledge of his profession; and although an evening student may by cram pass a creditable examination, the knowledge packed each evening into a brain wearied by office or shop toil is not likely to be lasting.

Again, it has, I believe, been proved that a man may be "plucked" in England and go to Scotland or Ireland and return a qualified "physician and surgeon." Indeed, although each man signs a paper stating he has not been "plucked" at any examination for some months, I have known several obtain a Scottish double qualification after having failed a week previously in London. I could dilate further on the subject, but I think I have shown that grave evils do exist in both Ireland and Scotland. Let us now consider if any faults exist in English examinations. I have carefully collected evidence on this matter, and I believe there is now only one fault—namely, that candidates for the L.S.A. diploma who, after passing, almost invariably in practice style themselves "surgeons," are not examined in surgery. If this were altered I think the English qualifications, one and all, would be good and reliable; if so, why should we insult our grand and ancient institutions by making their successful candidates pass a State examination? I would say, each division of the kingdom for itself; if Scotland and Ireland be satisfied with their degrees, let them remain; but, to come to the whole point of my letter, make every man, English, Scotch, or Irish, who tries his skill, or want of skill, on the English people, pass a final examination of an English qualifying body, and let Scotland and Ireland have the same rule with regard to English qualifications if it be thought necessary.

I am, Sir, your obedient servant,

August 14th, 1883. NUNTIUS.

*** We publish our correspondent's letter not because we agree with it, but rather because we believe that the difficult subject of medical qualification is to be better understood only by giving room for ventilating even crude and impracticable views. We think our correspondent's views very impracticable. "I would say, each division of the kingdom for itself .... make every man, English, Scotch, or Irish, who tries his skill, or want of skill, on the English people, pass a final examination of an English qualifying body, and let Scotland and Ireland have the same rule," &c. &c. Is not this the height of the impracticable? Does our correspondent really believe that he could get ten men in Parliament to reverse the principle of the legislation of 1858—that a man qualified to practise in one part of Her Majesty's dominions is qualified to practise in all? Does he believe, contrary to Mr. Gladstone, that there is not one profession, but three professions? No, the only practicable course is to carry out fully the principle of the Act of 1858: as we have given equal validity to diplomas, wherever obtained, to give them equal virtue and significance and to make sure that they represent equal degrees of competence and knowledge. It will never do for England, Ireland, and Scotland to treat each other as foreign countries in the matter of medical diplomatisation. The efforts of all good reformers must be to equalise and to elevate the terms of qualification, so that all international disparagement may cease. Neither can we join our correspondent in his views of grand and ancient institutions as distinguished from State examinations. What is the Apothecaries' Society but a State-created institution with a strong trade element in it? Surely, though it has been useful, it is neither ancient nor grand and would not survive a day in competition with a State examination, created by a Board in which all the "ancient and grand" institutions of the particular division of the kingdom would be represented.—ED. L.

## CLEAN CISTERNS.

*To the Editor of* THE LANCET.

SIR,—Now that so much attention is being directed to the detection of impurities in cisterns, I would mention a very simple contrivance that I hit upon for this purpose—namely, to introduce a small square of plate glass in each end of the cistern, close to the bottom, and placed at the opposite corners. By this means the bottom and each entire side are exposed to view. I have arranged with a manufacturer to form the holes prepared for glazing at half a crown each, so it is not an expensive matter. By making the glasses convex the impurities would be magnified and be more easily detected.

I am, Sir, your obedient servant,

Craigs-court, August 17th, 1883. EDWARD J. TARVER.

### TREATMENT OF THE DESQUAMATIVE STAGE OF SCARLET FEVER.

IN his report at a recent meeting of the Axbridge Board of Guardians, Mr. G. Smith, medical officer of the workhouse, speaks favourably of the treatment adopted by him in the desquamative stage of scarlet fever occurring amongst inmates of the workhouse—viz., sponging the body twice daily with oatmeal scalded (not boiled), in the proportion of one ounce of oatmeal by weight to one pint of boiling water, the resulting mixture being used tepid. By this means the risk of spreading the disease is diminished, the skin is protected from the action of the air, and the risk of dropsy is lessened.

*Mr. F. Priestley.*—The coroner is not bound to answer such a letter. He is responsible to the Home Secretary. If our correspondent can ascertain the facts in any other way he is at liberty to publish them and comment on them.

### VENTILATING SHAFTS FOR THE SEWERS OF LONDON.

*To the Editor of* THE LANCET.

SIR,—There is a considerable amount of similarity between an editor of a public journal and the Pope. Both of them assume to be infallible, but neither of them is so. An editor, however, has the advantage, because he may be, and sometimes is, right. The Pope, judged by the standard of theological truth, is not, never was, and never can be right. But although an editor has the advantage of a Pope, an editor may be and sometimes is inconsistent. It seems to be so with yourself. Not long ago you strongly opposed ventilating the Underground Railway into the streets by the ugly "blowholes." Quite right, because ventilation of the railway could be effected by easier, cheaper, and better means. But now you urge just as strongly that authority should erect ventilating "blowholes" to take the foul gas of the London filthy horizontal cesspools, nicknamed sewers, into the atmosphere of London streets and houses. Authority is bad enough, as we all know, but it is hoped that authority will never be guilty of such superlative folly as to pollute the air of the world's capital with bacilli, spores, and germs to generate disease. What is sewer gas? It is a poison, provocative of disease, or it is not. If not a poison, why make a fuss about it? If it is a poison, then I say the right place for sewer gas is the sewer. That it should there be attracted by suitable apparatus to the outfall, which, as nature refuses to have a vacuum, can easily be done, and there subjected to treatment, as the sewage itself should be. There is no difficulty about the matter, nor is there in preventing sewer gas from permeating houses by sinks and closets. Why, then, have ugly shafts or "blowholes" to poison the air of London, which, from smoke and other causes, is bad enough now? But here I may say that with a properly designed system of drainage, decomposition would not take place in sewers, and without decomposition sewer gas would not be found. Which, then, is the better course: to have badly constructed horizontal cesspools to generate gas to pollute houses and streets, or a wrong system of drainage altered or added to, and the production of sewer gas prevented? This is an important question, and it is hoped the lay press will soon take it up, if a medical journal cannot do so.

I am, Sir, your obedient servant,

Southsea, Aug. 18th, 1883. W. HEMPSON DENHAM.

*** Our correspondent fails to distinguish between "blowholes" at or only a little above the level of the streets, and high shafts. The former we condemn; the latter we approve.—ED. L.

*To the Editor of* THE LANCET.

SIR,—Reading your remarks on the above, induces me to believe that an account of an improved system of sewer ventilators, invented by the Mayor of Ryde, which has been tried, experimentally, on a sewer in a street of this town for more than three months, and alluded to by Mr. J. Talbot in the House of Commons on the 16th inst., may be interesting to you.

The temporary arrangement consists of one inlet shaft in the centre, and two outlet shafts, one at each end of the sewer, which is 750 feet long; on the inlet shaft is a self-acting cowl, with its mouth always to the wind, and, by a novel scientific arrangement, this cowl causes currents of wind to blow with considerably greater force into the sewers than the wind is blowing outside the cowl. How this is effected I will not attempt to explain; nevertheless, of the fact that it is accomplished I have no doubt. And since the system has been in action the inhabitants of the street say they have not detected one whiff of sewer gas, whereas previously they were constantly complaining of offensive smells from it, and frequently of cases of typhoid fever from inhaling sewer gas. Should you consider a scientific explanation of the system worth your attention, I have no doubt an application to the Mayor would meet with a ready response. I have a paper containing an official report upon it by Messrs. Easton and Co., sanitary engineers, Westminster, which terminates as follows:—"In conclusion, we consider that this scheme for ventilation should receive the serious consideration of all borough surveyors of towns, as from the results obtained we feel confident it will provide for the long-felt want of an efficient and simple system of sewer ventilation." From my experience of cholera in the Crimea, 1855, and in Egypt in 1865, I should say that allowing the foul air from sewers to escape into the streets presents one of the readiest ways of spreading choleraic germs, should that epidemic unhappily reach our shores.

I am, Sir, your obedient servant,

August 18th, 1883. A. M. L.

### MEDICAL STUDY IN JAPAN.

THE last annual report of the medical department of the University of Tokio shows the actual number of students to be as follows:—Medical students, 169 (course conducted by German professors); those following the same course in the Japanese language, 760; pharmaceutical students, 71—making a total of 1000. The number of graduates in medicine was: German course, 31; course in the Japanese language, 171; pharmacy, 133. At the same time there were abroad in foreign countries 94 students of medicine and 32 of pharmacy, mostly in Germany.

*P. W. G. C.*—Our correspondent's case is not one of those contemplated in the clauses of the Bill, but it is possible that if the circumstances were fully explained to the new Medical Council it might take his case into favourable consideration. He would do well, however, to get some existing licensing body to recognise his curriculum and take its diploma.

### THE CONTINUOUS WATER-SUPPLY.

*To the Editor of* THE LANCET.

SIR,—With reference to your remarks which appeared in a recent number of your journal on "London Water," as to which you say, "it is satisfactory to learn that the constant supply system is extending, so we may hope in the course of time London will be free from the dangers which lurk in foul cisterns and filthy butts, &c. &c.," will you permit me, having given considerable attention to the subject, to express the hope that before the "constant supply" system is generally adopted, the water companies will not insist on enforcing the present very arbitrary and impracticable regulations made for the purpose of carrying out such a system; for while they have been framed for the supposed purpose of protecting the companies against the waste of water, they cause, I may say, incalculable misery to householders in consequence of the mechanism frequently getting out of order, so that it is often necessary to turn off the water from the main which supplies all the w.c.'s, sinks, &c., until a plumber can be summoned to rectify the defect; hence the latter, and not the public, get the benefit of the proverbial "ill-wind."

Now, the places mostly requiring a plentiful supply of water are the w.c.'s, but the service-boxes, which, according to the regulations, are placed in all w.c.'s, have quite a contrary effect, and through this complicated mechanism they continually either cause an overflow or stop the supply of water altogether; while, on the other hand, where it is not so essential no check is placed on the quantity of water that may be used. Again, the drinking-water, according to the new regulations, is allowed to be drawn from the main without being first deposited in the cisterns; hence it contains suspended particles. Now I maintain that this water is more injurious than that drawn from the cistern, for these "suspended particles" form the ordinary sediment in cisterns, but which, however, can be removed from time to time, so that there can be no two opinions as to the danger of drinking what I will call "main" water without being first filtered.

While writing on this subject, will you permit me to point out a defect which appears to be overlooked even by experienced sanitary engineers. Although a w.c. may be constructed with all the latest improvements and with an accurately fitting trap and air-shaft, so that it is an impossibility for any gas to escape into the house by this means, yet when the closet is used unpleasant odours are frequently perceptible not only in the rooms situated on the same floor, but also in those situated on upper floors, and yet the atmosphere in the w.c. may be perfectly pure. How does this arise? In nearly all houses the same joists which form the basis for the support of the w.c. communicate with other apartments on the same floor, and, in addition to this, the interspace of the walls beneath the seat of the w.c. is in direct communication with the ceiling above, and so on to the upper rooms. Now, according to the construction of all w.c.'s, without exception, there is necessarily a space, no matter how small, between the top part of the pan or basin and the under surface of the seat, consequently unpleasant odours enter the space thus formed, and thence find their way into the adjoining apartments. It is true that occasionally air-bricks are placed in the outer walls under the w.c.; but I contend that this method of ventilation only tends to create a current to drive the effluvia with greater force through the floors and walls, as I have just explained. To remedy this grievance, all communication with the joists and walls should be cut off by closing the space with sheet zinc, or, what is better, cementing over any open spaces that may be found. Everyone, I feel, will, on reflection, regard this as a most serious matter, and, considering that this defect exists in nearly every house, especially in those "run up" by the speculative builders, it ought to be brought under the consideration of every District Board of Works.

I am, Sir, yours truly,

Baron's Court, S.W., Aug. 21st, 1883. R. FITZROY BENHAM.

*M. A. P.*—The custom varies in different places. Our correspondent should ascertain the rule of the town in which he is about to reside.

*Mr. Duncan* (Cardiff).—Next week.

### THE APOTHECARY SOCIETY *v.* PEARSON.

*To the Editor of* THE LANCET.

SIR,—In your report of the above trial you omit several points, one very important, proved in the evidence—namely, that in every case of illness I always called in qualified medical aid.

I am, Sir, yours obediently,

Stamford-street, S.E., August 22nd, 1883. C. PEARSON.

### HEALTH RESORT GUIDE BOOKS.

DR. M'GRIGOR MACLAGAN, medical officer of health to the Hexham Union Rural Sanitary Authority, asks us to state that he knows nothing of the book entitled "A Medical Guide to the Principal Health Resorts of Northumberland and Durham," and that the insertion of his name in the list of medical men practising in the vicinity, which is included in the volume, was done without his permission.

### A SPECIAL CLASS ORDER OF KNIGHTHOOD FOR MEDICAL MEN.

*To the Editor of* THE LANCET.

SIR,—A feeling of unrest is evident amongst the profession as to the marks of State appreciation its services to the country and to humanity receive. Some people are asking for life peerages, others, as in Ireland, are repudiating simple knighthood, and baronetcies are complained of inasmuch as they handicap one's posterity by a dignity which needs wealth to support; but all agree that enough is not done to satisfy the just demands of the profession. As to life peerages, even if they were granted they would fall to very few of our number, certainly not more than the existing number of bishops in the House of Lords. Baronetcies require large private fortunes, so that what is needed seems to be some personal, non-hereditary distinction granted by the State. Such a want is entirely filled by a special or class order of knighthood, graduated into companions, knight commanders, and grand crosses, exactly on the lines of the Bath, the Star of India, and the St. Michael and St. George orders. A class order loses any invidious character when the class who receive it have enough pride and *esprit de corps* to believe in its absolute value, and when they cease to clamour for other orders simply because they think their own good enough.

I take it that a special order for services rendered to humanity would be a highly honourable order, and would, as the world progresses, be highly appreciated. Such an order would have the Sovereign as its grand master, fifty grand crosses and 100 knights commanders, and the usual proportion of companions, and, further, a junior grade suitable for rewarding individuals of more modest merit who could not claim companionships. If you ask me how such an order is to be developed, I should reply, from the lately established "Royal Red Cross" order. It seems to me quite absurd that so noble a title should be monopolised solely for a female order when the highest services for which it is given have been rendered by men. The Red Cross order should be expanded into a regular order of knighthood of the Red Cross, with all the classes as in the Bath or the Star of India, and in addition the existing grade as now given to nurses, whether male or female, who do good service. I think also that, in any modern order, women, if they do good service equal to what men would do, should be eligible for every grade of the order, and a woman like Miss Nightingale might well receive a grand cross in so honourable an order; but to classify her and some nurse who has served a month in Egypt is hardly a fitting way of rewarding her service. I think the French have just given the higher grade of the Legion of Honour to a woman for special ambulance service. A special civil and military branch of the order might exist, and such an order would, I think, set at rest the deep feeling of dissatisfaction that exists in the official medical ranks at the want of suitable rewards for service done. As to its foundation, it only needs a favourable expression of opinion on the part of the profession to have it brought within the region of practical politics. The Government is of course completely swayed by public opinion, and if medical men agree on this, or indeed any point, that point is practically gained.

Of course there will be many who would despise such an order, and who would not accept a class order; but practically all orders start as class orders and gradually become famous, and then everyone not in the class wants them. I have no doubt that at first the Red Cross order would be much joked about; in twenty years everyone would be trying to get into it, and in a generation after it was founded a special order of this most noble kind would stand higher perhaps than most. As to its distribution, it would be in the hands of the Government; and just as baronetcies are now distributed practically in accordance with the unwritten verdict of the profession, so would the new order be bestowed. Whatever is done, I enter a protest against the most noble and most honourable decoration of the Red Cross being unfairly monopolised by women only. Such an order owes its title to the action of men in a great measure, and to exclude us and our men from it is quite unjust.—I am, Sir, yours, &c.,

Woolwich, August, 1883. G. F. H. EVATT, M.D.,
Surgeon-Major, A.M.D.

*G. E. B.*—We do not give advice of the kind. A qualified medical man should be consulted.

### "ON THE NECESSITY OF EXPOSURE OF SOFT CHANCRES WITH REGARD TO TREATMENT."

*To the Editor of* THE LANCET.

SIR,—For several years past I have been in the habit of pursuing the practice, advocated by Mr. Potter in last week's LANCET, of slitting up the prepuce upon a director in cases of chancre complicated with a long prepuce, and I find that the practice is attended with the best results, owing to the glans being then within reach of the remedies. I have been much surprised at the very slight deformity visible even after a very long incision. Certainly much time is saved, the chancres and the incision healing much more rapidly.

I am, Sir, yours obediently,

Lambeth Infirmary, Aug. 17th, 1883. ROBT. H. LLOYD, M.D.

*Fair Remuneration.*—At the least the members should pay 4*s.* a year each. Children give more work and trouble than adults, but it is customary to make some allowance for persons with families in proportion to the number of their children. The fee for midwifery should be a guinea, and partly paid out of the Honorary Fund, on condition that the patient's contribution is prepaid.

### CARBOLIC ACID IN THE TREATMENT OF DIARRHŒA.

*To the Editor of* THE LANCET.

SIR,—As a great deal of attention is now being directed, and will continue to be directed, to the subjects of diarrhœa and vomiting, it may be well to record the value of carbolic acid in their treatment, and the more especially as there is an intimate relation between diarrhœa and cholera.

From Neale's Digest I find that carbolic acid has been recommended by Sansom in the *Medical Times and Gazette*, and by Barnes in THE LANCET. Speaking from a large experience in the treatment of very severe cases of diarrhœa and vomiting, with cramps in the legs and great prostration, I consider it an invaluable remedy. I prescribe it in two-minim doses every two or three hours, combined with twenty-minim doses of the aromatic spirits of ammonia and from ten to fifteen minims of the solution of morphia in an effervescing mixture. Two or three doses generally suffice to stop the worst cases. I may add that I always order a large mustard plaster over the whole of the abdomen. I always give carbolic acid in the diarrhœa of children, whatever may be the cause of the attack, combining it generally with bismuth, glycerine, and the aromatic confection of the British Pharmacopœia.

I am, Sir, your obedient servant,

C. R. ILLINGWORTH, M.D.

Clayton-le-Moors, Accrington, August 13th, 1883.

*Mr. David Davies.*—We are unable to trace the report referred to.

*C. S. H.* is referred to a general notice in another column.

### CHYLOUS URINE.

*To the Editor of* THE LANCET.

SIR,—Can you or any of your readers give me any suggestions as to the treatment of chylous urine? I have a patient, a young man about twenty-seven, an engineer, born in India, where he has passed the greater part of his life, who has suffered for about two years from occasional attacks of chyluria. The urine becomes milky during the digestive process following breakfast, gradually clearing towards night. This occurs on two successive days as a rule. The attack then passes off, and the urine remains perfectly normal for some months. During these attacks, and for a day or two previous, there is a good deal of depression and malaise complained of. Since he has been under my care he has been taking reduced iron with apparently some slight benefit; previously he had undergone no treatment. With the exception of these attacks he enjoys very fair health, although his chest seems to be somewhat weak.

I am, Sir, yours truly,

Zanzibar, July, 1883. E. PARNELL GRIFFITH, M.R.C.S.E.

*Mr. W. J. Kilner.*—The paper is marked for early insertion.

*Mr. Brannigan.*—Soon.

### ADMINISTRATION OF ANÆSTHETICS.

*To the Editor of* THE LANCET.

SIR,—Mr. Martin Coates' method of administering anæsthetics (THE LANCET, July 28th) appears more safe and reasonable than the ordinary, and I would ask for information on one or two points. Is the anæsthetic exactly measured, as, if so, an assistant would be almost required. Another thing which I think is of importance is whether the anæsthetic can be added without removing the inhaler. This removal disturbs the patient, when only partly conscious, and throws back the development of anæsthesia by this disturbance, as well as by the admission of pure air. In all inhalers it would, I think, be an advantage to be able to give an additional amount of the anæsthetic without moving the inhaler, with the consequent disturbance of the progressive anæsthesia. When full anæsthesia is produced of course the inhaler could be removed as required.

I am, Sir, yours truly,

St. James's-road, Liverpool, Aug. 18th, 1883. RICHMOND LEIGH.

### INFECTED RAGS, ROAD VENTILATORS, AND CHOLERA.

*To the Editor of* THE LANCET.

SIR,—Though no epidemic of cholera can be proved to have arisen from infected rags, yet if it be true, as has been asserted, that choleraic matter deposited on rags will, after a period of even thirty years, burst into life again on being subjected to heat and moisture, it certainly seems to be right and proper to use all precautions with regard to the introduction of rags from infected districts. Again, supposing that cholera should make its appearance in this country, I cannot help thinking that it would be particularly necessary to attend to the disinfection of the main sewers immediately contiguous to the houses attacked, otherwise the germs might escape through the open road gratings, and be productive of widespread serious mischief.

I am, Sir, your obedient servant,

Surbiton, August, 1883. F. P. ATKINSON.

*M.B.* (Witney).—Dr. Poore in his lectures on Electro-therapeutics, published in THE LANCET, Jan. 23rd, 1875, refers to two cases in which "live-blood" yielded to large doses of iodide of potassium. A correspondent in our issue of April 24th, 1880, recommends belladonna in combination with hyoscyamus in the affection.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Theodore Williams, London; Mr. J. Hutchinson, London; Mr. Oswald, London; Mr. Sampson Gamgee, Birmingham; Mr. L. Humphry, Cambridge; Baron Malortie, Aden; Mr. Morley, Manchester; Mr. Tarver, London; Mr. Stretton, Kidderminster; Dr. Syson, Hartford; Dr. O. Pritchard, London; Dr. T. M'G. Maclagan, Hexham; Mr. Denham, London; Mr. Thistle, Torquay; Dr. Malins, Birmingham; Mr. Lovett, London; Mr. Jefferson, York; Dr. Renton, Glasgow; Mr. Hosegood, Swinton; Mr. Priestley, London; Dr. MacCombies, London; Mr. J. W. Smith, Doncaster; Mr. Jasper, Manchester; Mr. Brannigan, Liverpool; Mr. W. J. Kilner, London; Mr. H. E. Armstrong, Newcastle-on-Tyne; Mr. Harris, Butterfield; Mr. Footner, Tunbridge; Mr. E. C. Board, London; Surgeon-Major Gray, Bombay; Mr. T. Edis, Gloucester; Mr. Randall; Dr. Norris, Birmingham; Brigade-Surgeon Oughton; Dr. Burnet, London; Mr. Burnett, Balham; Mr. Burgess, Spilsby; Dr. Ogston, jun.; Dr. Tonge Smith; Mr. White; Mr. Armstrong; Mr. Field; Mr. Lloyd, Liverpool; Dr. Atkinson, Wylam; Mr. Nelson; Mr. Sutton, Stroud-green; Mr. Jansiade, London; Messrs. C. H. May and Co., London; Mr. Cornish, Manchester; Messrs. Debenham and Tewson, London; Messrs. Wagstaff and Co., Highbury; Mr. Hannay, Westbury; Messrs. Brooks and Drayton, Lymington; Dr. Devereux, Tewkesbury; Mr. Edwardes, Huddersfield; Dr. Thomas, Glasgow; Mr. Mitchell; Dr. O'Keeffe; Dr. Wright; Dr. Thompson; Mr. Blyth; Mr. Trewman, Portsea; Mr. Palmer; Messrs. Russell and Co., Liverpool; Mr. Latimer; Mr. Metcalfe; Mr. Wallace; Messrs. Kennedy and Co., Winnipeg; Mr. Baillière, Paris; Messrs. Smith and Son, Dublin; Mr. H. Kimpton; Mr. Wilson, London; Mr. Elliott, Carlisle; Dr. Dickson; Dr. Julius Goldschmidt, Madeira; Dr. Gordon Holmes; Dr. Waddell, Calcutta; Mr. Duncan, Cardiff; Mr. Greenish, Ashton-under-Lyne; Mr. F. Banham, London; Mr. F. F. Caiger, London; Mr. Freeman, London; The Director-General, A.M.D.; S. E. P.; R. N., Birmingham; X.; Indian Medical Service; Justitia; A. M. S.; Beta, Carnarvon; J. W.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Brooke; Mr. Coast; Dr. Maltby, Barford; Dr. Allkin, Manchester; Mr. Dyson, Haddersfield; Dr. M'Connell, Whitehall; Mr. Blyth; Mr. Wilson; Messrs. Cassell and Co., London; Messrs. Wall and Co.; Mr. Isley, Trowbridge; Messrs. Protheroe and Morris, London; Mr. Davidson, Congleton; Mr. Hemmons, Bristol; Mr. Jones, West Bromwich; Mr. C. H. Cox, Cambridge; Mr. W. P. Terry, Winchester; Mr. Hulme, Birmingham; Mr. T. Stones, Haxey; Mr. F. Farmer, Bridgewater; Dr. Fraser, Aberdeen; Mr. Whitmore, Dursley; Mr. Morris, Baltimore; Mr. Heap, Birkenhead; Mr. Philpots; Dr. Devereux; Messrs. Faring and Co., London; Messrs. Rockliff; Mr. Cox, Denbigh; Miss Phair, Liverpool; Messrs. Thompson and Son, London; Dr. Butler, Shelf; Mr. Saunders; Mr. Smith, Southwark; Mr. Watson, Sunderland; Dr. Adam, Morling; Fides, New-cross; Dr. H., Clapton; T. S. S.; Nemo; E. P.; Cantab; M. B., M. A.; W. H. B., St. Alban's; C. S. J., Bermondsey; Alpha; L. O. Y.; Ergot; Medicus, Liverpool; G. B.; S. K. Y. E.; Omega; Medical Man; M.D., St. Ives; A. C. K.; R. S., Tavistock; Epsilon, Rotherham; Alpha, Fairfield; S.; M.D.; P. A. W.; Purchaser; Principal, St. Leonards; Medicus, Camberwell; C. M., Bewdley; P. N. E.; J. D. F., York; &c., &c.

*Edinburgh Courant, Liverpool Weekly Albion, Hawick Express, Weston Mercury, Presbyterian Banner, The Citizen, Gloucestershire Chronicle, Mid Surrey Gazette, Madras Times, Reading Express, &c.*, have been received.

## METEOROLOGICAL READINGS.

*(Taken daily at 8 30 a.m. by Steward's Instruments.)*

THE LANCET OFFICE, August 23rd, 1883.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Dry Bulb. | Wet Bulb. | Solar Radia in Vacuo. | Max. Temp. Shade. | Min. Temp. | Rain fall. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| Aug. 17 | 30·13 | W. | 59 | 58 | 85 | 69 | 52 | .. | Raining |
| ,, 18 | 30·18 | N. | 65 | 62 | 115 | 80 | 58 | ·02 | Overcast |
| ,, 19 | 30·20 | S.W. | 69 | 63 | 105 | 76 | 57 | .. | Bright |
| ,, 20 | 30·17 | E. | 60 | 58 | 115 | 81 | 53 | .. | Hazy |
| ,, 21 | 30·18 | W. | 66 | 61 | 106 | 82 | 59 | .. | Hazy |
| ,, 22 | 30·18 | W. | 68 | 64 | 95 | 76 | 62 | .. | Hazy |
| ,, 23 | 30·31 | N.E. | 61 | 65 | 103 | 72 | 55 | .. | Fine |

# Medical Diary for the ensuing Week.

### Monday, August 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

### Tuesday, August 28.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

### Wednesday, August 29.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

### Thursday, August 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, August 31.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

### Saturday, Sept. 1.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.


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